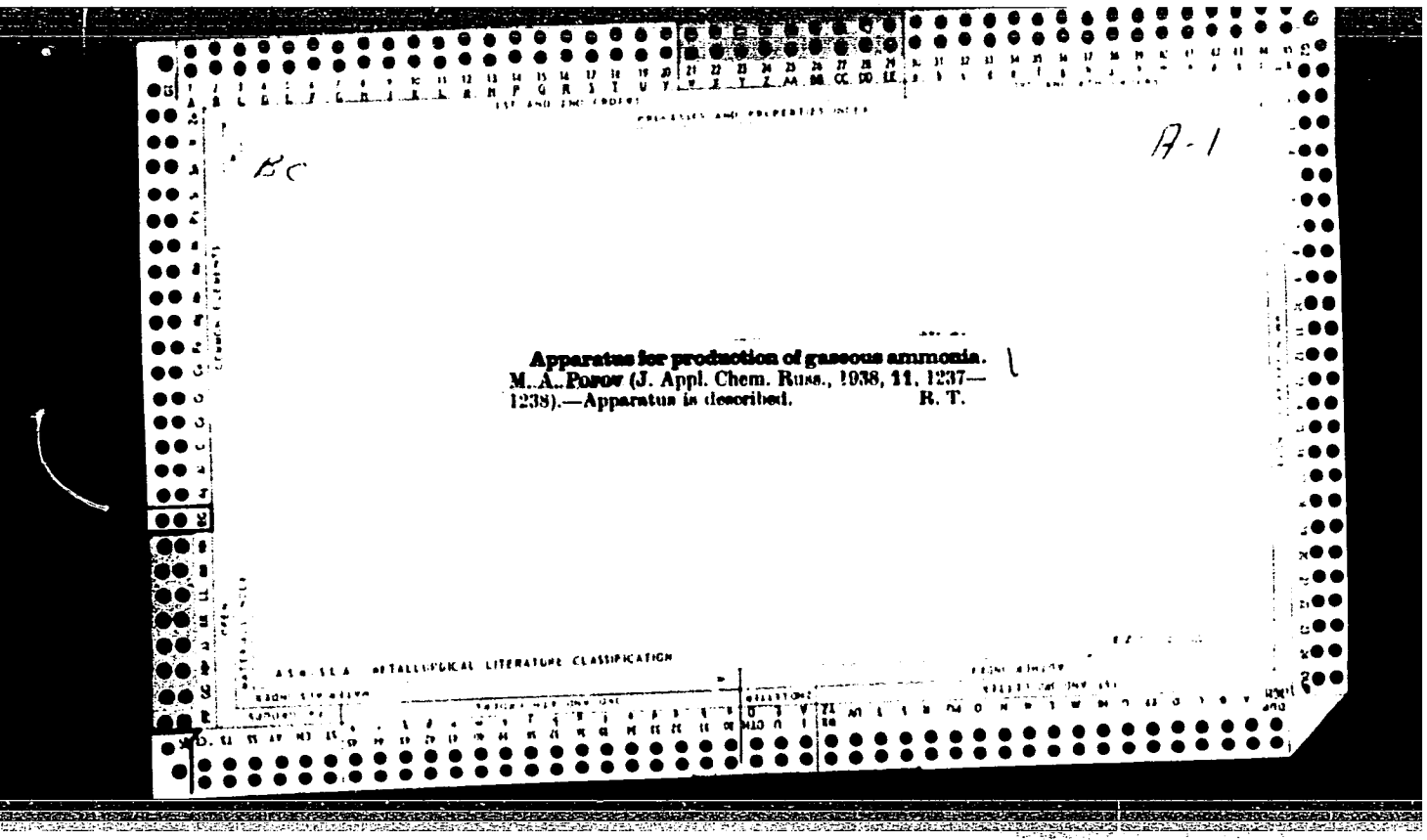
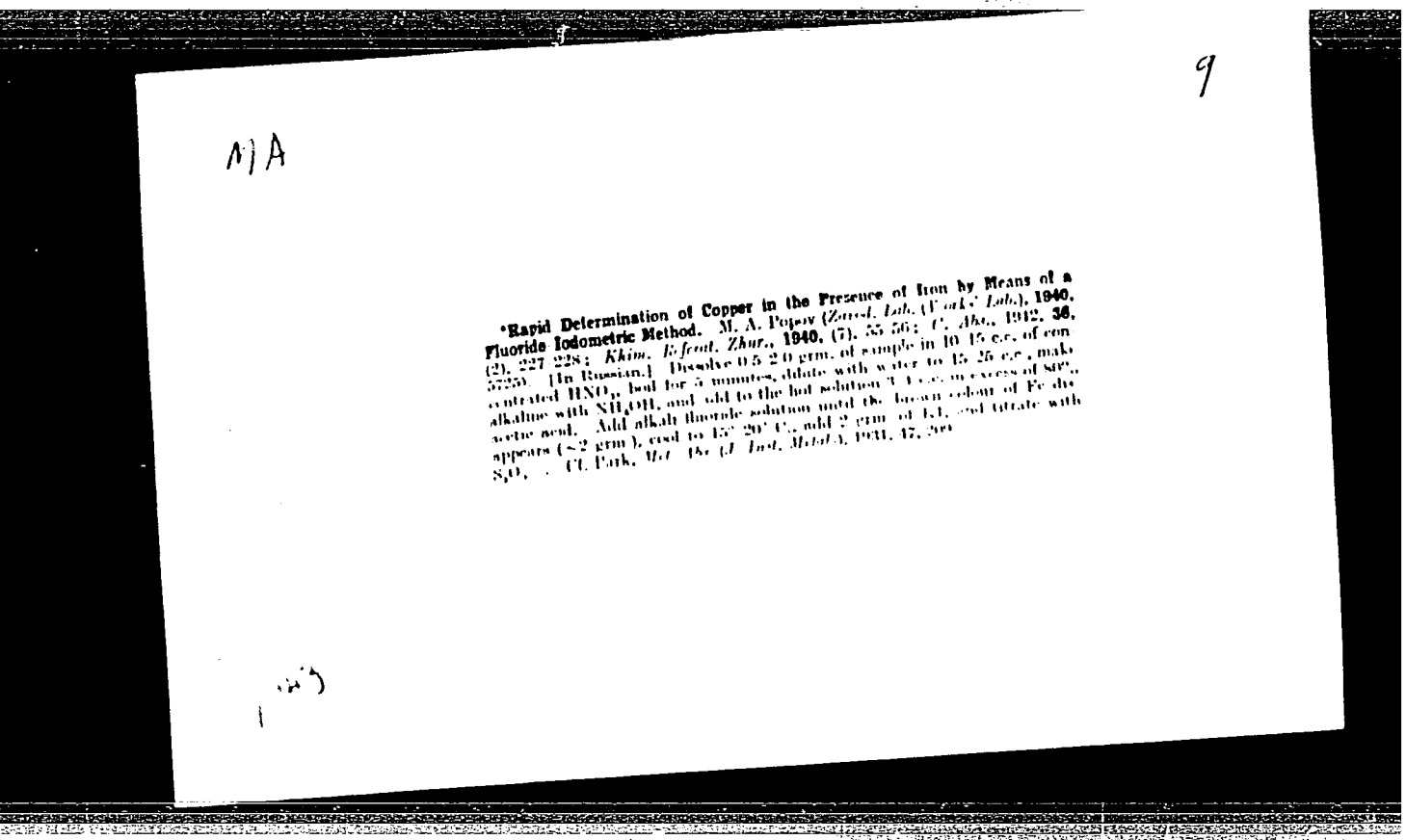


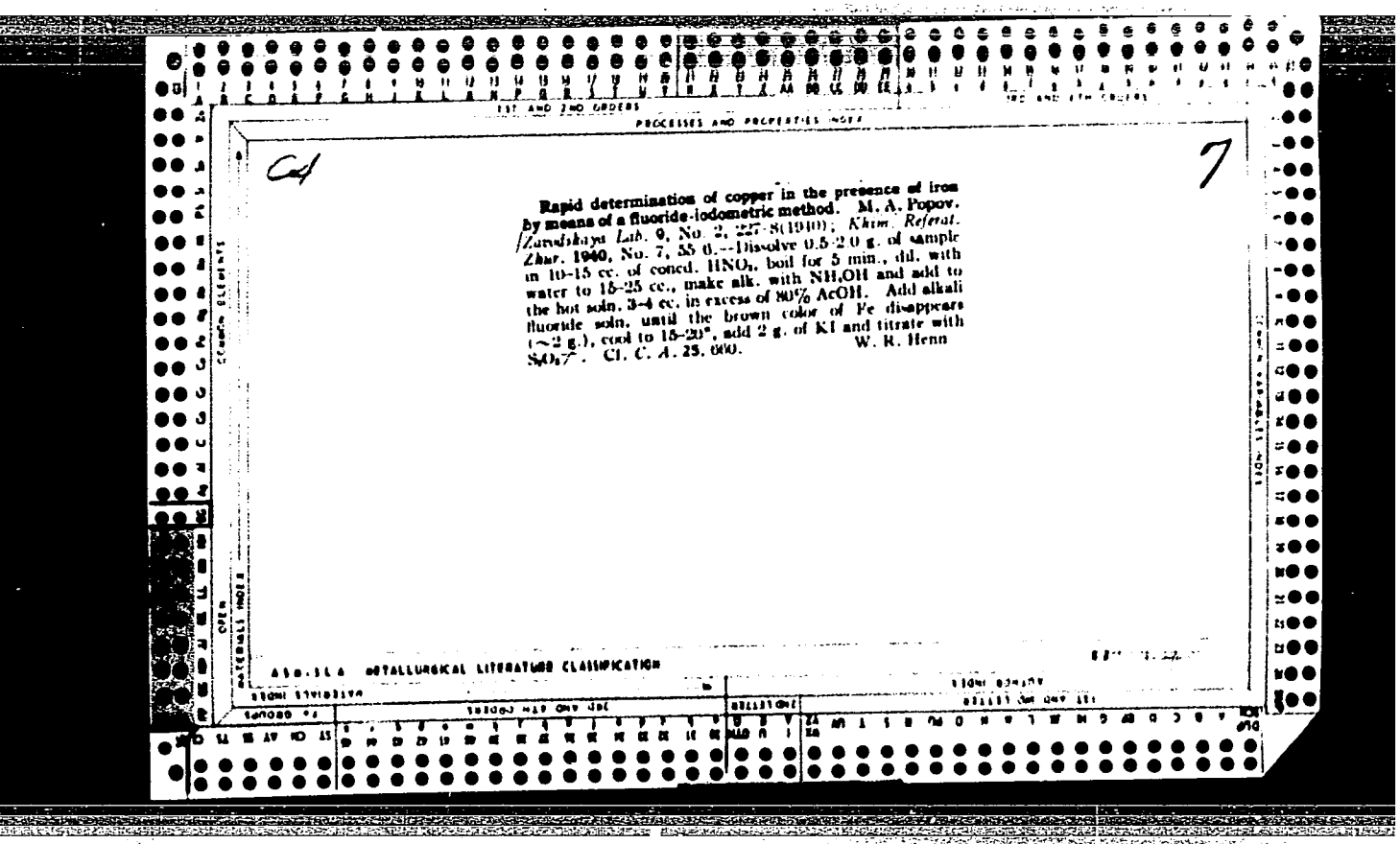
Apparatus for production of gaseous ammonia. M. A. Popow (J. Appl. Chem. Russ., 1938, 11, 1237—1238).—Apparatus is described. R. T.



9

N/A

Rapid Determination of Copper in the Presence of Iron by Means of a Fluoride Iodometric Method. M. A. Pojarv (*Zavod. Lab. (Works' Lab.)*, **1940**, (2), 227–228; *Khim. Referat. Zhur.*, **1940**, (7), 55–56; *C. Abs.*, 1942, **36**, 5725). [In Russian.] Dissolve 0.5–2.0 grm. of sample in 10–15 c.c. of concentrated HNO_3, boil for 5 minutes, dilute with water to 15–25 c.c., make alkaline with NH_4OH, and add to the hot solution 3–4 c.c. in excess of strong acetic acid. Add alkali fluoride solution until the brown colour of Fe disappears (~2 grm.), cool to 15°–20° C., add 2 grm. of KI, and titrate with $S_2O_3^{--}$. — C. Park. *Met. Ab. (J. Inst. Metals.)*, 1941, 17, 301

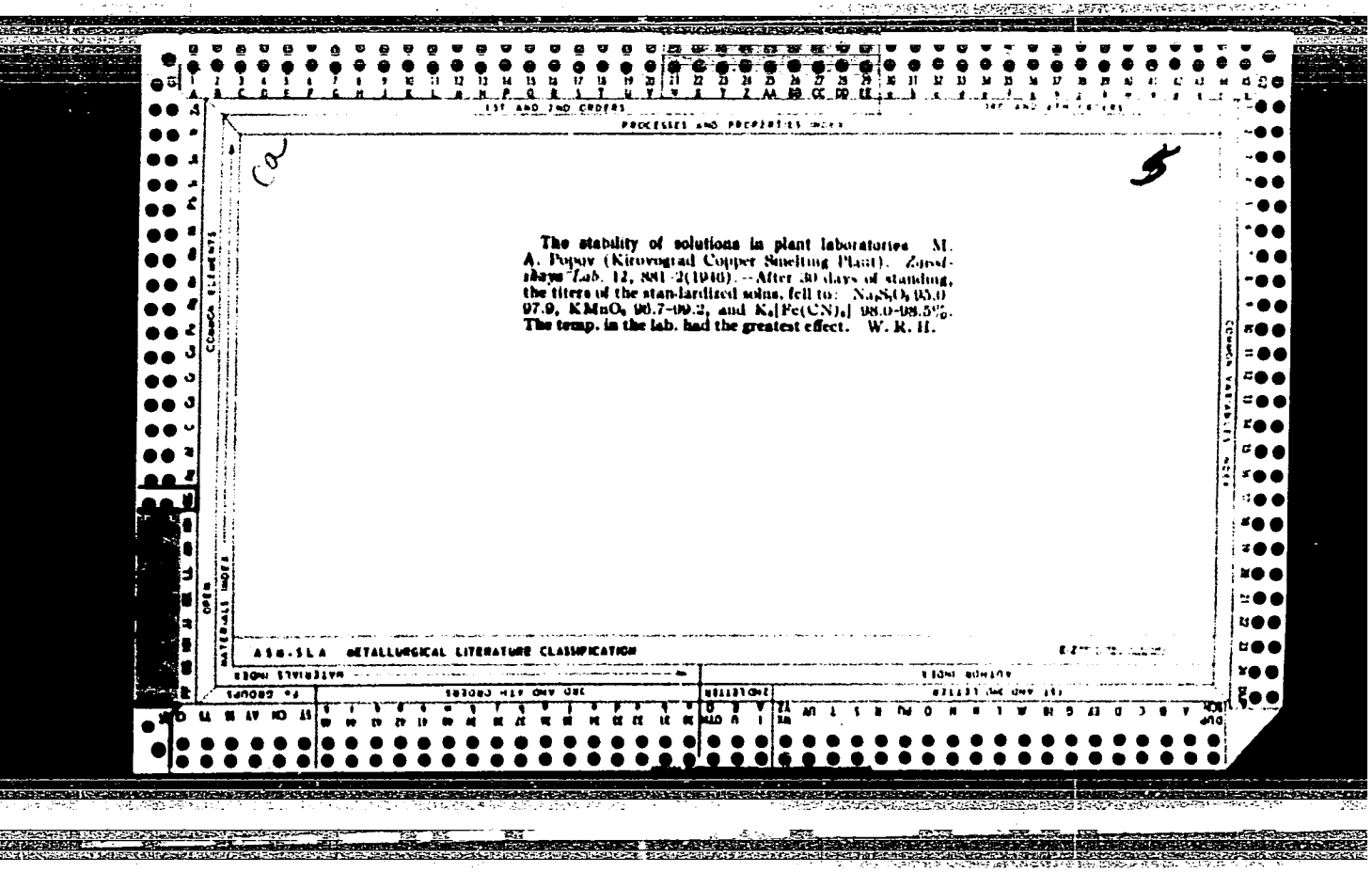


Cu

7

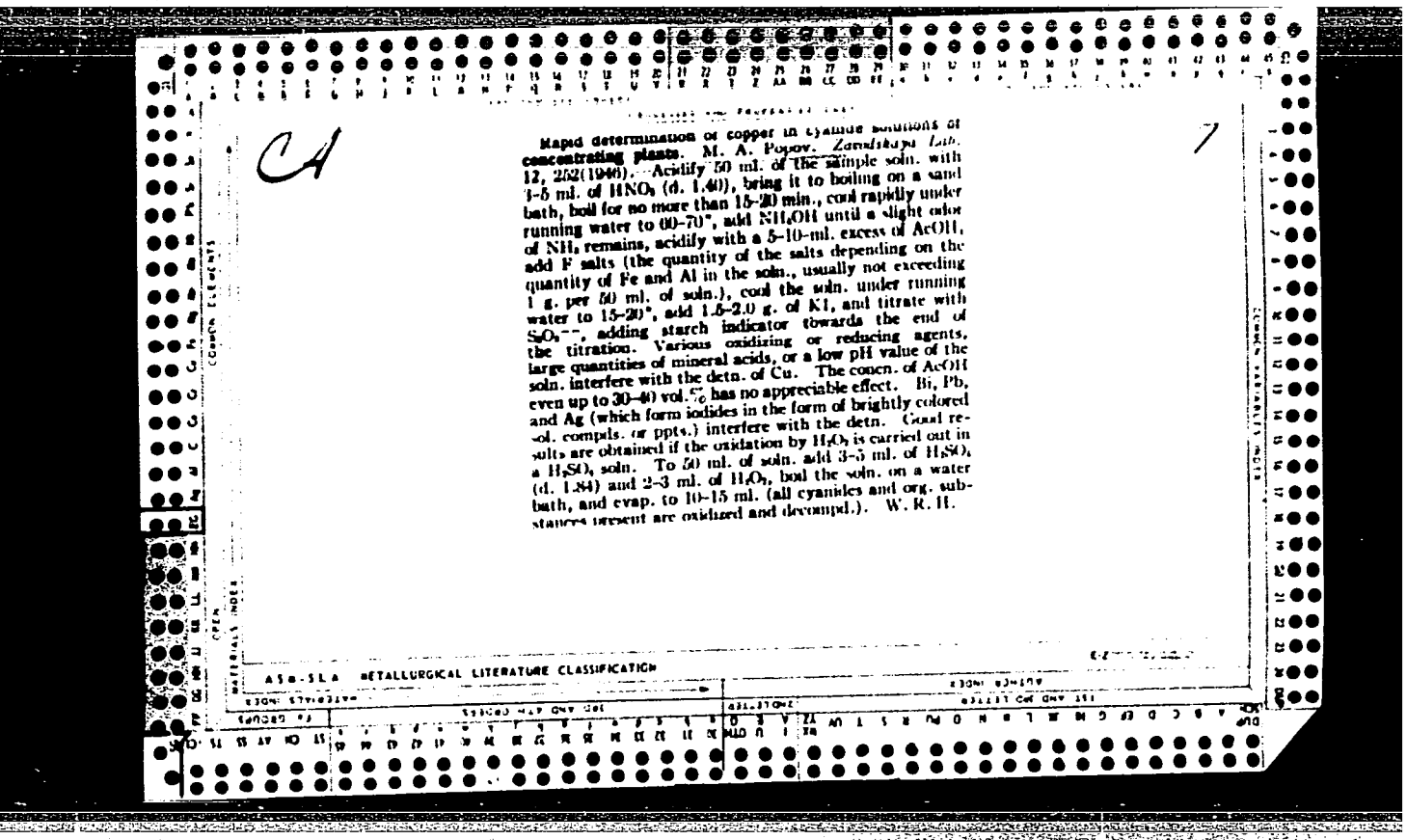
Rapid determination of copper in the presence of iron by means of a fluoride-iodometric method. M. A. Popov. *Zavodskaya Lab.* 9, No. 2, 227-8(1940); *Khim. Referat. Zhur.* 1940, No. 7, 55 0.—Dissolve 0.5-2.0 g. of sample in 10-15 cc. of concd. HNO_3, boil for 5 min., dil. with water to 15–25 cc., make alk. with NH_4OH and add to the hot soln. 3–4 cc. in excess of 80% AcOH. Add alkali fluoride soln. until the brown color of Fe disappears (~2 g.), cool to 15–20°, add 2 g. of KI and titrate with $S_4O_6^{=}$. Cf. C. A. 25, 600. W. R. Henn

A58.31A METALLURGICAL LITERATURE CLASSIFICATION



The stability of solutions in plant laboratories. M. A. Popov (Kirovogrud Copper Smelting Plant). *Zavodskaya Lab.* 12, 881-2(1940).—After 30 days of standing, the titers of the standardized solns. fell to: $Na_2S_2O_3$ 95.0-97.9, $KMnO_4$ 99.7-99.2, and $K_4[Fe(CN)_6]$ 98.0-98.5%. The temp. in the lab. had the greatest effect. W. R. H.

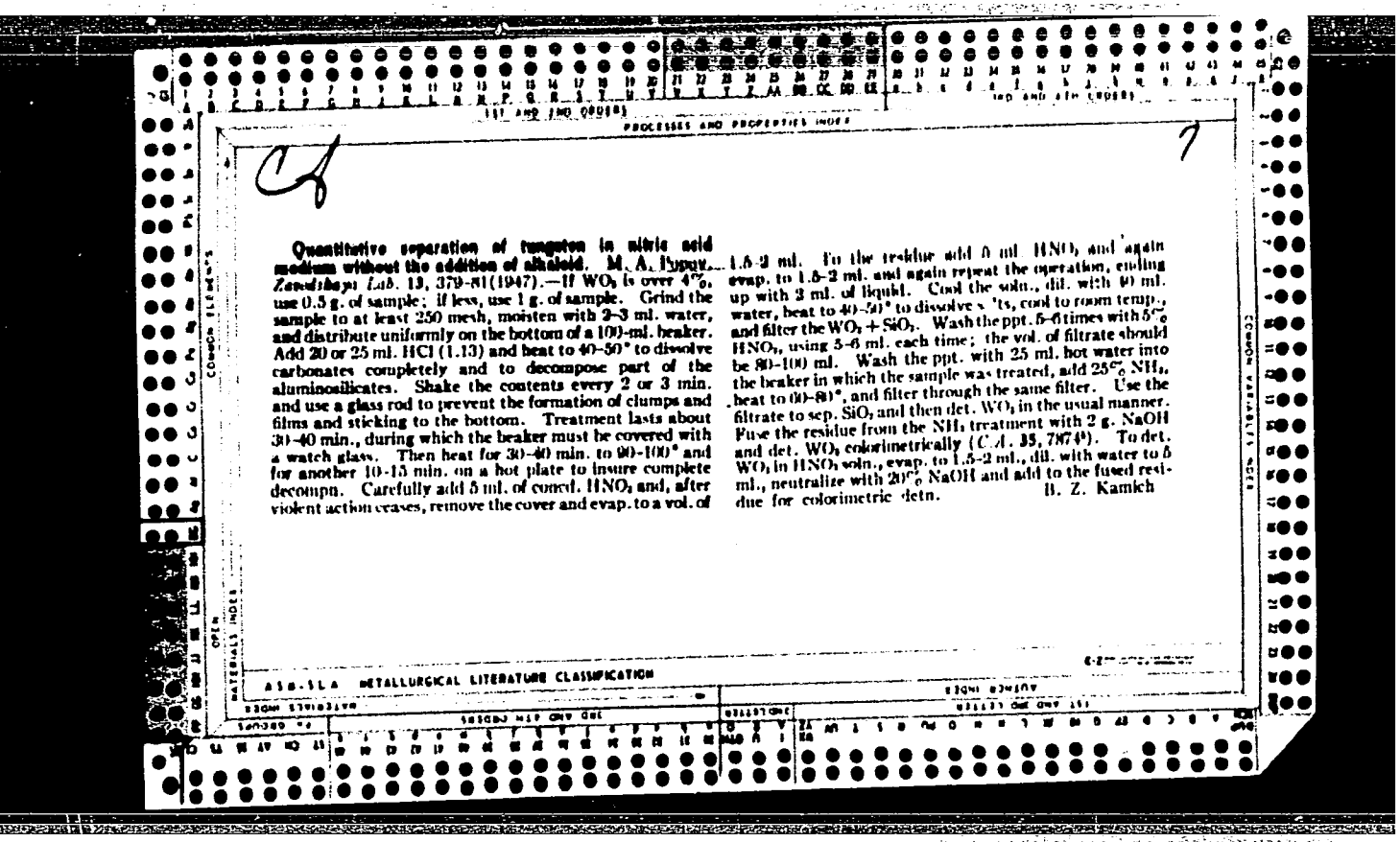
A58-5LA METALLURGICAL LITERATURE CLASSIFICATION



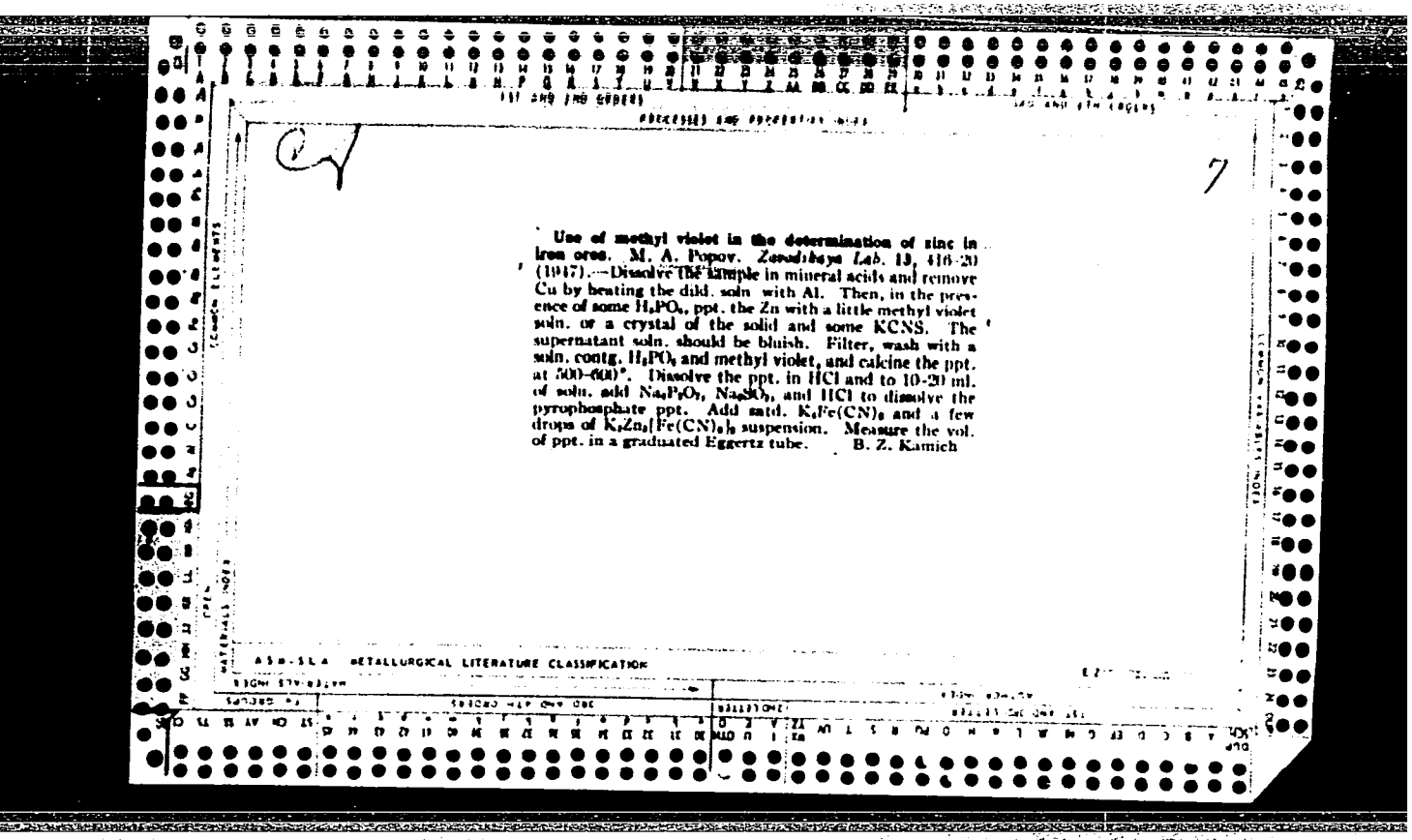
CA

Rapid determination of copper in cyanide solutions of concentrating plants. M. A. Popov. *Zavodskaya Lab.* 12, 252(1946). Acidify 50 ml. of the sample soln. with 3–5 ml. of HNO_3 (d. 1.40), bring it to boiling on a sand bath, boil for no more than 15–20 min., cool rapidly under running water to 60–70°, add NH_4OH until a slight odor of NH_3 remains, acidify with a 5–10-ml. excess of AcOH, add F salts (the quantity of the salts depending on the quantity of Fe and Al in the soln., usually not exceeding 1 g. per 50 ml. of soln.), cool the soln. under running water to 15–20°, add 1.5–2.0 g. of KI, and titrate with $S_2O_3^{--}$, adding starch indicator towards the end of the titration. Various oxidizing or reducing agents, large quantities of mineral acids, or a low pH value of the soln. interfere with the detn. of Cu. The concn. of AcOH even up to 30–40 vol.% has no appreciable effect. Bi, Pb, and Ag (which form iodides in the form of brightly colored sol. compds. or ppts.) interfere with the detn. Good results are obtained if the oxidation by H_2O_2 is carried out in a H_2SO_4 soln. To 50 ml. of soln. add 3–5 ml. of H_2SO_4 (d. 1.84) and 2–3 ml. of H_2O_2, boil the soln. on a water bath, and evap. to 10–15 ml. (all cyanides and org. substances present are oxidized and decompd.). W. R. H.

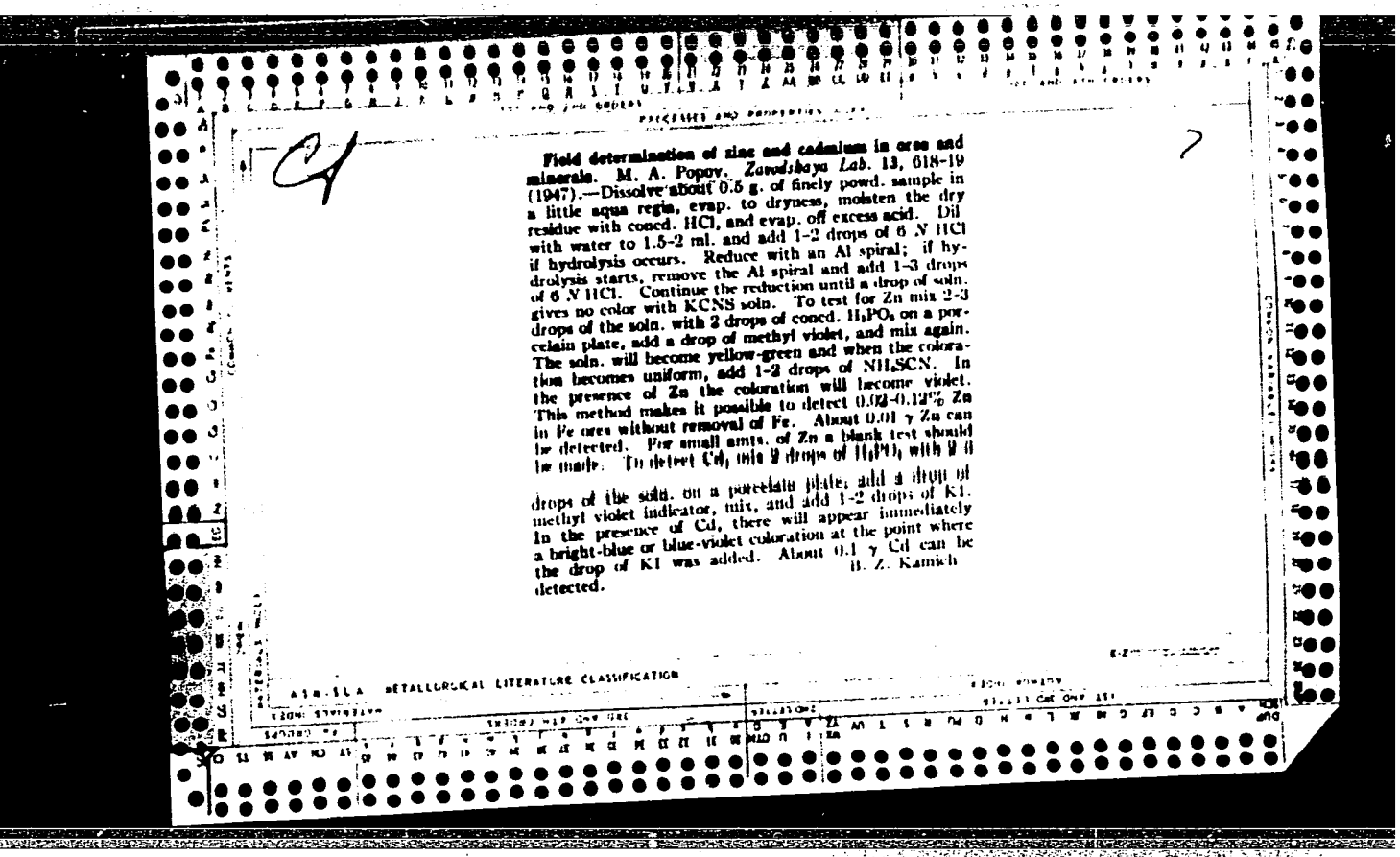
A58-51A METALLURGICAL LITERATURE CLASSIFICATION



Quantitative separation of tungsten in nitric acid medium without the addition of alkaloid. M. A. Tupay... *Zavodskaya Lab.* 13, 379–81(1947).—If WO_3 is over 4%, use 0.5 g. of sample; if less, use 1 g. of sample. Grind the sample to at least 250 mesh, moisten with 2–3 ml. water, and distribute uniformly on the bottom of a 100-ml. beaker. Add 20 or 25 ml. HCl (1.13) and heat to 40–50° to dissolve carbonates completely and to decompose part of the aluminosilicates. Shake the contents every 2 or 3 min. and use a glass rod to prevent the formation of clumps and films and sticking to the bottom. Treatment lasts about 30–40 min., during which the beaker must be covered with a watch glass. Then heat for 30–40 min. to 90–100° and for another 10–15 min. on a hot plate to insure complete decompn. Carefully add 5 ml. of concd. HNO_3 and, after violent action ceases, remove the cover and evap. to a vol. of 1.5–2 ml. To the residue add 5 ml. HNO_3 and again evap. to 1.5–2 ml. and again repeat the operation, ending up with 3 ml. of liquid. Cool the soln., dil. with 40 ml. water, heat to 40–50° to dissolve salts, cool to room temp., and filter the $WO_3 + SiO_2$. Wash the ppt. 5–6 times with 5% HNO_3, using 5–6 ml. each time; the vol. of filtrate should be 80–100 ml. Wash the ppt. with 25 ml. hot water into the beaker in which the sample was treated, add 25% NH_3, heat to 60–80°, and filter through the same filter. Use the filtrate to sep. SiO_2 and then det. WO_3 in the usual manner. Fuse the residue from the NH_3 treatment with 2 g. NaOH and det. WO_3 colorimetrically (*C.A.* 35, 7874⁹). To det. WO_3 in HNO_3 soln., evap. to 1.5–2 ml., dil. with water to 5 ml., neutralize with 20% NaOH and add to the fused residue for colorimetric detn. B. Z. Kamich

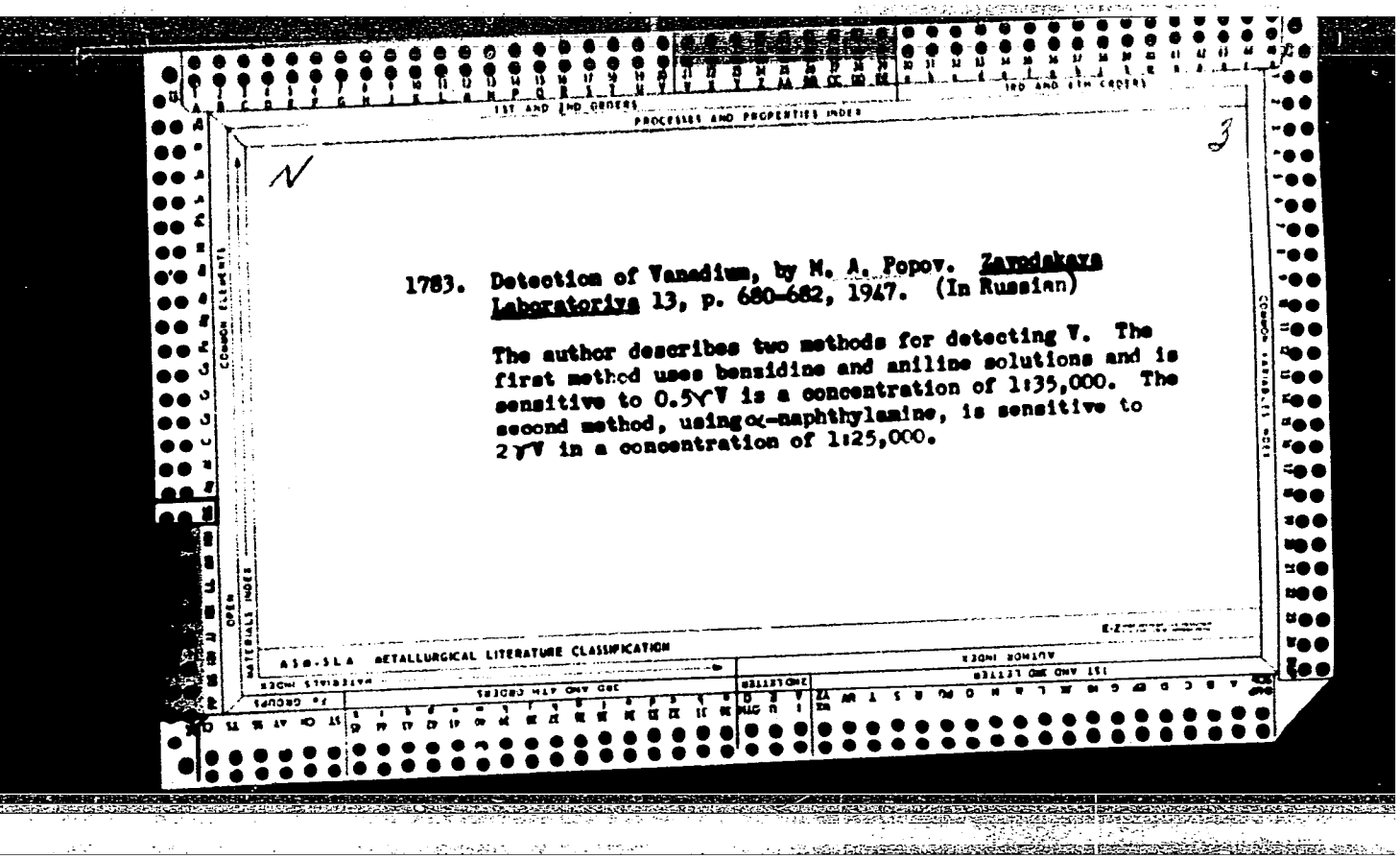


Use of methyl violet in the determination of zinc in iron ores. M. A. Popov. *Zavodskaya Lab.* 13, 416-20 (1947).—Dissolve the sample in mineral acids and remove Cu by heating the dild. soln with Al. Then, in the presence of some H_3PO_4, ppt. the Zn with a little methyl violet soln. or a crystal of the solid and some KCNS. The supernatant soln. should be bluish. Filter, wash with a soln. contg. H_3PO_4 and methyl violet, and calcine the ppt. at 500–600°. Dissolve the ppt. in HCl and to 10–20 ml. of soln. add $Na_4P_2O_7$, Na_2SO_3, and HCl to dissolve the pyrophosphate ppt. Add satd. $K_4Fe(CN)_6$ and a few drops of $K_2Zn_3[Fe(CN)_6]_2$ suspension. Measure the vol. of ppt. in a graduated Eggertz tube. B. Z. Kamich



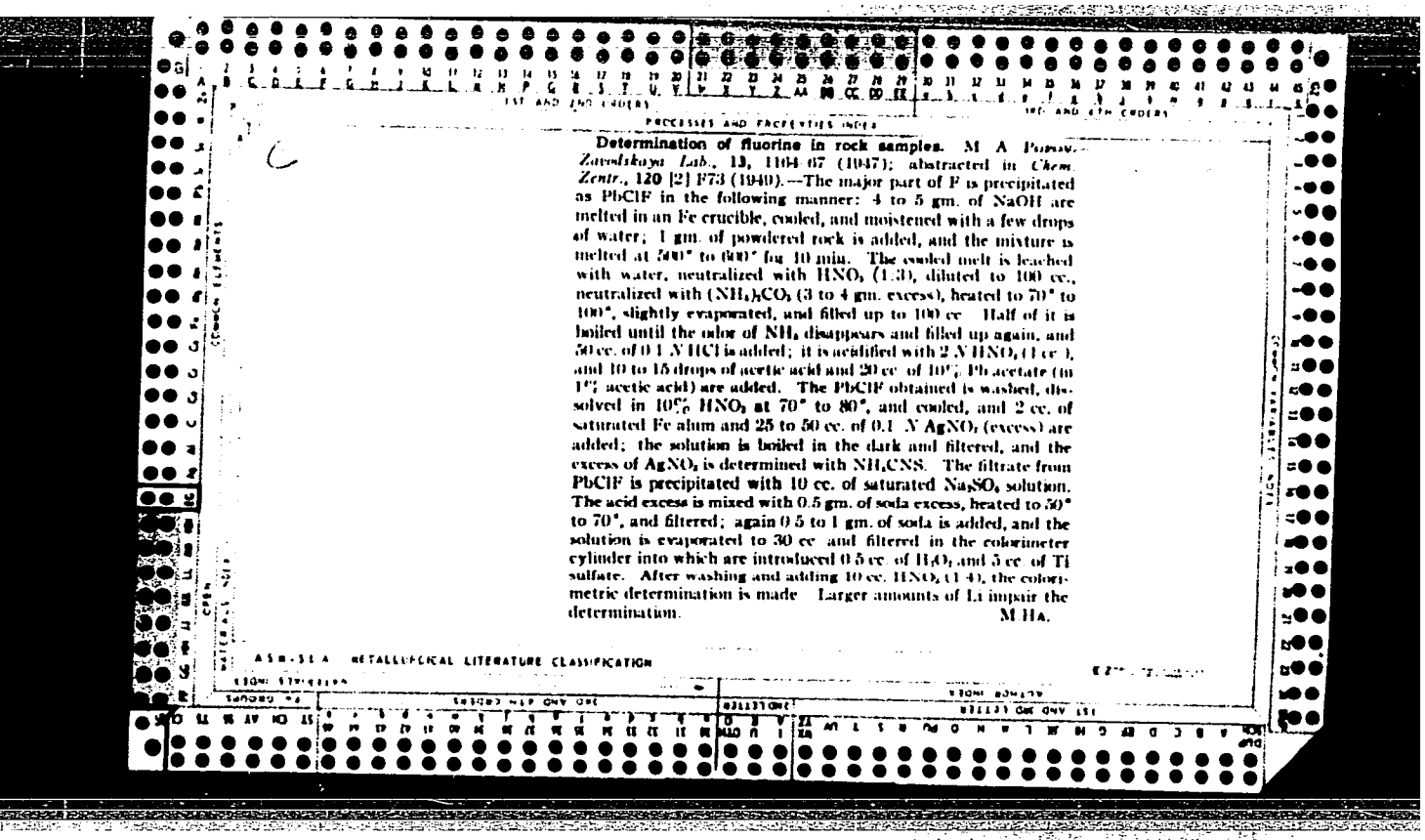
Field determination of zinc and cadmium in ores and minerals. M. A. Popov. *Zavodskaya Lab.* 13, 618–19 (1947).—Dissolve about 0.5 g. of finely powd. sample in a little aqua regia, evap. to dryness, moisten the dry residue with concd. HCl, and evap. off excess acid. Dil. with water to 1.5–2 ml. and add 1–2 drops of 6 *N* HCl if hydrolysis occurs. Reduce with an Al spiral; if hydrolysis starts, remove the Al spiral and add 1–3 drops of 6 *N* HCl. Continue the reduction until a drop of soln. gives no color with KCNS soln. To test for Zn mix 2–3 drops of the soln. with 2 drops of concd. H_3PO_4 on a porcelain plate, add a drop of methyl violet, and mix again. The soln. will become yellow-green and when the coloration becomes uniform, add 1–2 drops of NH_4SCN. In the presence of Zn the coloration will become violet. This method makes it possible to detect 0.02–0.12% Zn in Fe ores without removal of Fe. About 0.01 γ Zn can be detected. For small amts. of Zn a blank test should be made. To detect Cd, mix 2 drops of H_3PO_4 with 2 drops of the soln. on a porcelain plate, add a drop of methyl violet indicator, mix, and add 1–2 drops of KI. In the presence of Cd, there will appear immediately a bright-blue or blue-violet coloration at the point where the drop of KI was added. About 0.1 γ Cd can be detected.

B. Z. Kamich



1783. Detection of Vanadium, by M. A. Popov. Zavodskaya Laboratoriya 13, p. 680-682, 1947. (In Russian)

The author describes two methods for detecting V. The first method uses benzidine and aniline solutions and is sensitive to 0.5γV is a concentration of 1:35,000. The second method, using α-naphthylamine, is sensitive to 2γV in a concentration of 1:25,000.

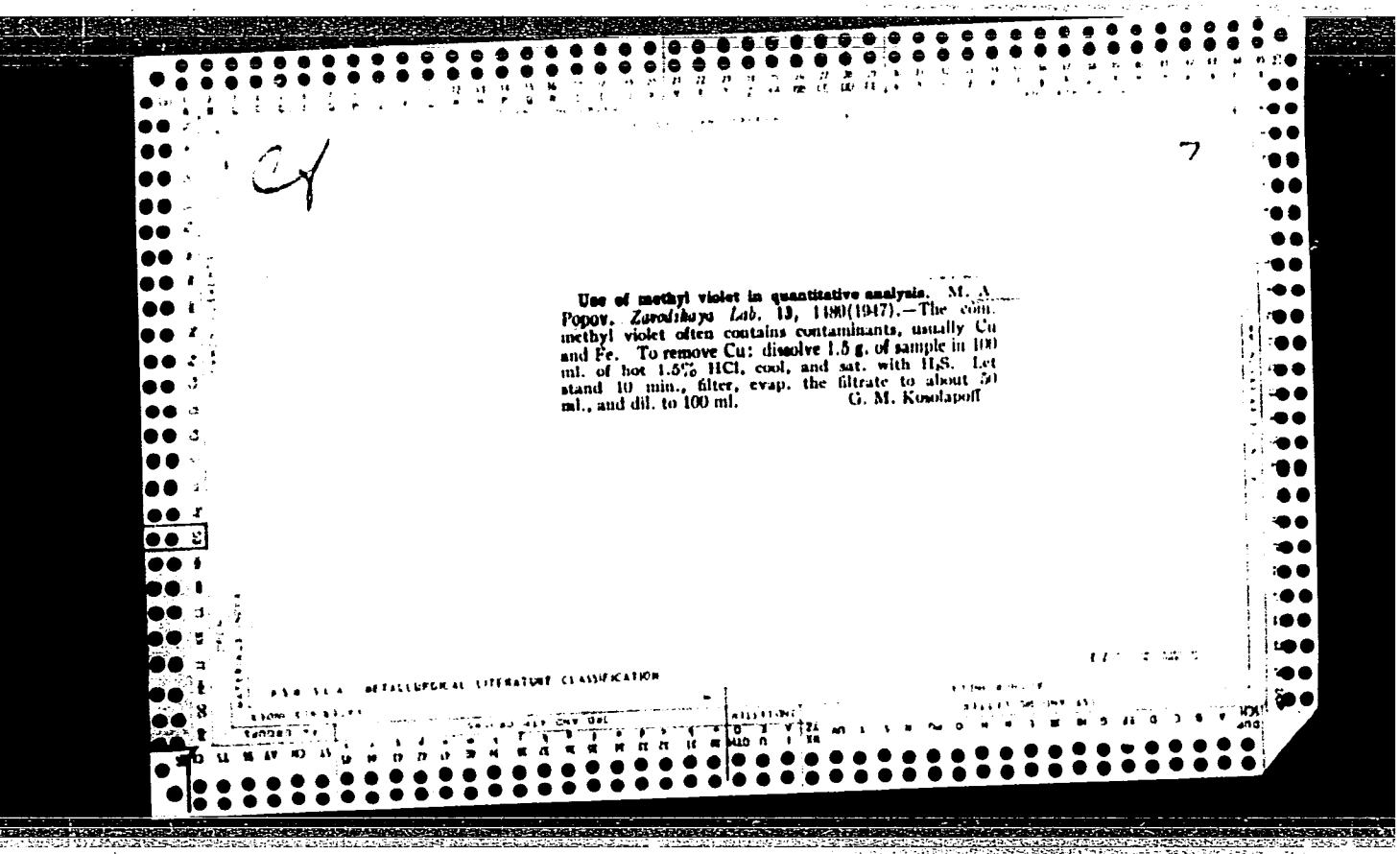


PROCESSES AND PREPARATIVE METHODS

Determination of fluorine in rock samples. M. A. Pursu... *Zavodskaya Lab.*, **13**, 1104-07 (1947); abstracted in *Chem. Zentr.*, **120** [2] F73 (1949).—The major part of F is precipitated as PbClF in the following manner: 4 to 5 gm. of NaOH are melted in an Fe crucible, cooled, and moistened with a few drops of water; 1 gm. of powdered rock is added, and the mixture is melted at 500° to 600° for 10 min. The cooled melt is leached with water, neutralized with HNO_3 (1:3), diluted to 100 cc., neutralized with $(NH_4)_2CO_3$ (3 to 4 gm. excess), heated to 70° to 100°, slightly evaporated, and filled up to 100 cc. Half of it is boiled until the odor of NH_3 disappears and filled up again, and 50 cc. of 0.1 *N* HCl is added; it is acidified with 2 *N* HNO_3 (1 cc.), and 10 to 15 drops of acetic acid and 20 cc. of 10% Pb acetate (in 1% acetic acid) are added. The PbClF obtained is washed, dissolved in 10% HNO_3 at 70° to 80°, and cooled, and 2 cc. of saturated Fe alum and 25 to 50 cc. of 0.1 *N* $AgNO_3$ (excess) are added; the solution is boiled in the dark and filtered, and the excess of $AgNO_3$ is determined with NH_4CNS. The filtrate from PbClF is precipitated with 10 cc. of saturated Na_2SO_4 solution. The acid excess is mixed with 0.5 gm. of soda excess, heated to 50° to 70°, and filtered; again 0.5 to 1 gm. of soda is added, and the solution is evaporated to 30 cc. and filtered in the colorimeter cylinder into which are introduced 0.5 cc. of H_2O_2 and 5 cc. of Ti sulfate. After washing and adding 10 cc. HNO_3 (1:4), the colorimetric determination is made. Larger amounts of Li impair the determination.

M. Ha.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Use of methyl violet in quantitative analysis. M. A. Popov. *Zavodskaya Lab.* 13, 1180(1947).—The com. methyl violet often contains contaminants, usually Cu and Fe. To remove Cu: dissolve 1.5 g. of sample in 100 ml. of hot 1.5% HCl, cool, and sat. with H_2S. Let stand 10 min., filter, evap. the filtrate to about 50 ml., and dil. to 100 ml. G. M. Kosolapoff

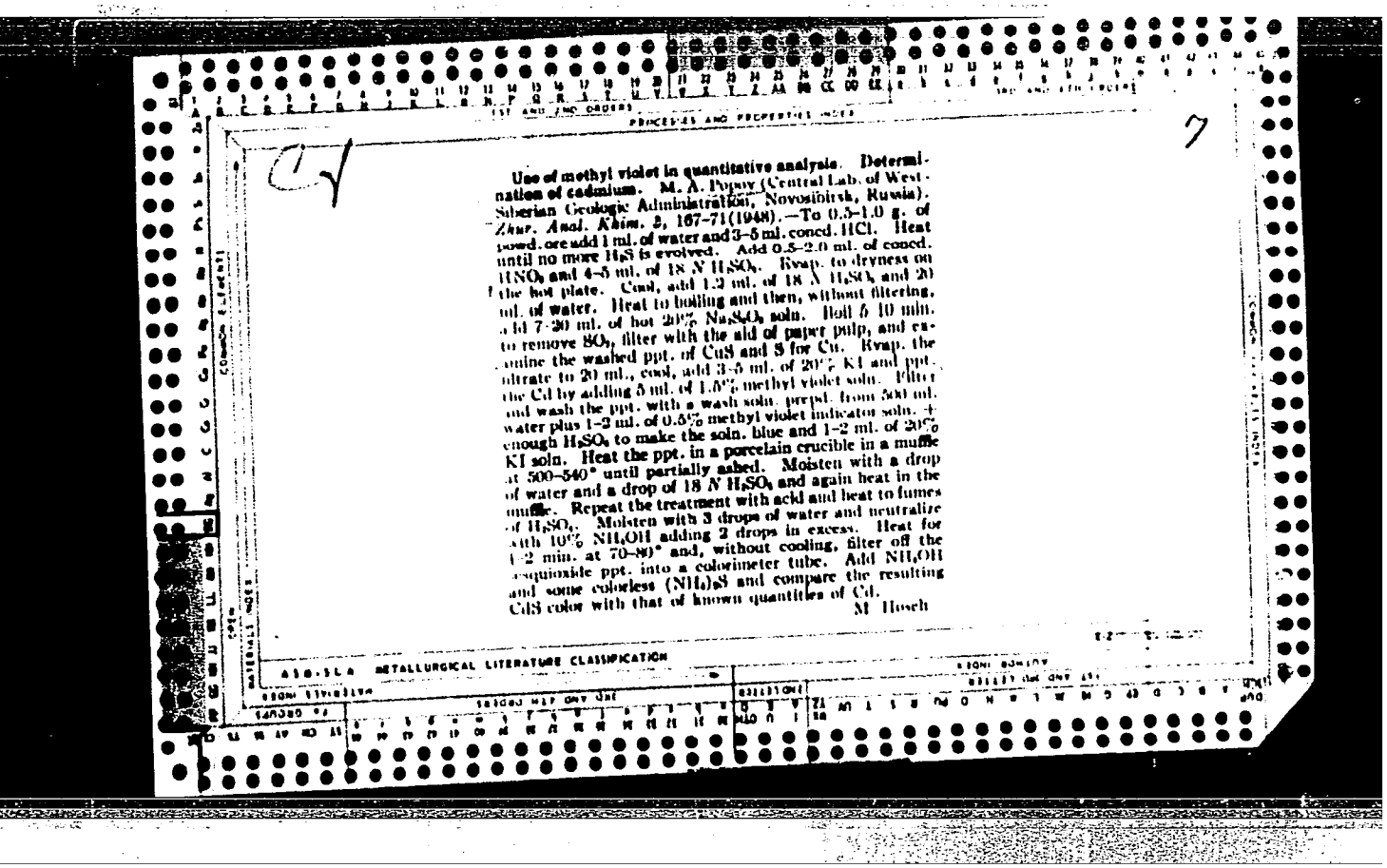
[illegible]

The [illegible]nation of butyl alcohols in the presence of catalysts. p. 1109.

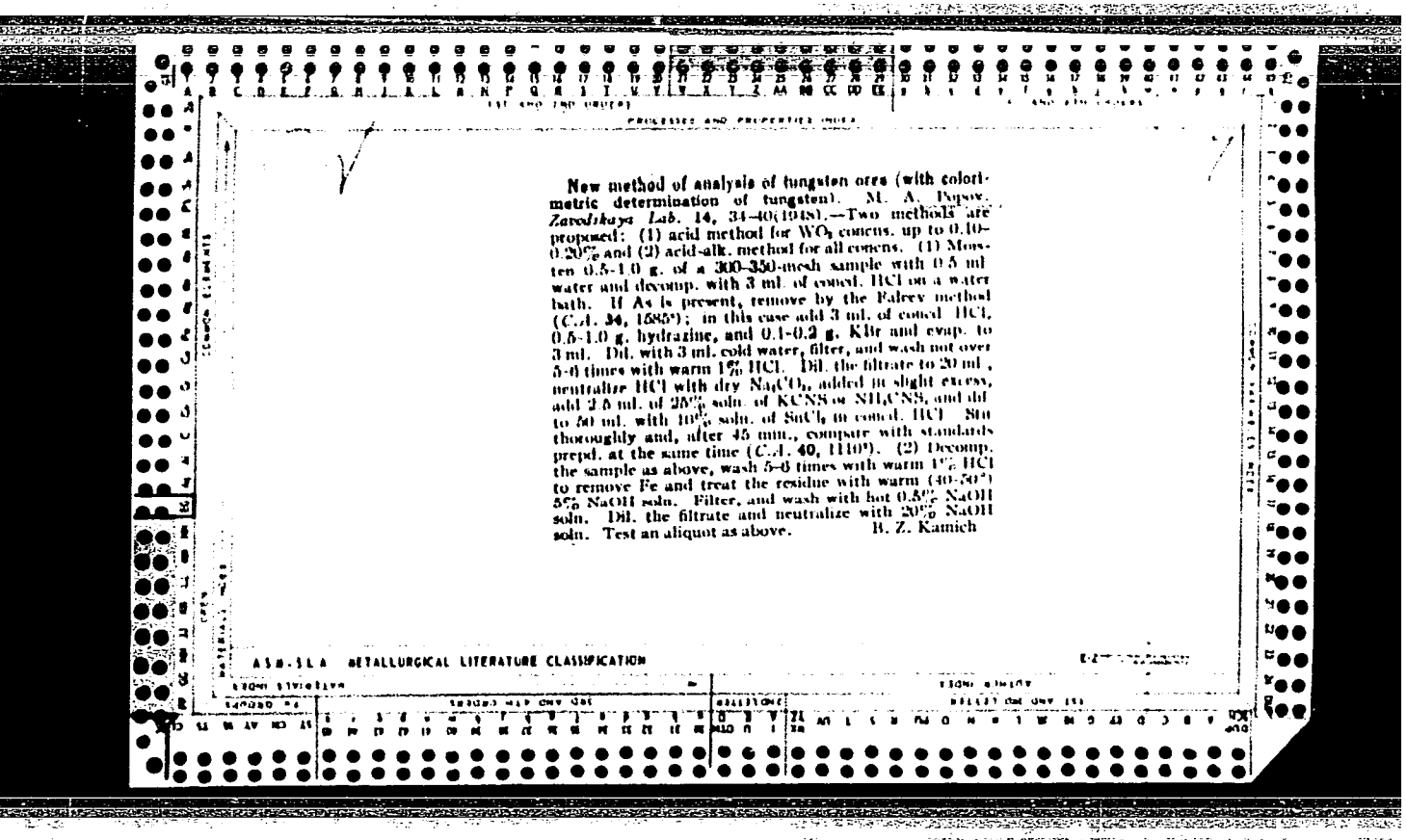
The position of the hydroxyl group in butyl alcohols h[illegible] great influence in the yield of [illegible]nes. The reaction proceeds best with primary alcohols. Secondary alcohol amin tes less and only in the presence of active carbon. Tertiary alcohol gives an insignificant amount of amines.

L b. of Organic Che[illegible]. of the Crimean Stalin Inst. of Medicine.
February 18, 1947

SO: Journal of General Chemistry (USSR) 18 (80) No. [illegible] (1948)



Use of methyl violet in quantitative analysis. Determination of cadmium. M. A. Popov (Central Lab. of West-Siberian Geologic Administration, Novosibirsk, Russia). *Zhur. Anal. Khim.* 3, 167–71(1948).—To 0.5–1.0 g. of powd. ore add 1 ml. of water and 3–5 ml. concd. HCl. Heat until no more H_2S is evolved. Add 0.5–2.0 ml. of concd. HNO_3 and 4–5 ml. of 18 *N* H_2SO_4. Evap. to dryness on the hot plate. Cool, add 1.2 ml. of 18 *N* H_2SO_4 and 20 ml. of water. Heat to boiling and then, without filtering, add 7–20 ml. of hot 20% Na_2SO_3 soln. Boil 5–10 min. to remove SO_2, filter with the aid of paper pulp, and examine the washed ppt. of CuS and S for Cu. Evap. the filtrate to 20 ml., cool, add 3–5 ml. of 20% KI and ppt. the Cd by adding 5 ml. of 1.5% methyl violet soln. Filter and wash the ppt. with a wash soln. prepd. from 500 ml. water plus 1–2 ml. of 0.5% methyl violet indicator soln. + enough H_2SO_4 to make the soln. blue and 1–2 ml. of 20% KI soln. Heat the ppt. in a porcelain crucible in a muffle at 500–540° until partially ashed. Moisten with a drop of water and a drop of 18 *N* H_2SO_4 and again heat in the muffle. Repeat the treatment with acid and heat to fumes of H_2SO_4. Moisten with 3 drops of water and neutralize with 10% NH_4OH adding 2 drops in excess. Heat for 1–2 min. at 70–80° and, without cooling, filter off the resquioxide ppt. into a colorimeter tube. Add NH_4OH and some colorless $(NH_4)_2S$ and compare the resulting CdS color with that of known quantities of Cd.
M. Hosch



New method of analysis of tungsten ores (with colorimetric determination of tungsten). M. A. Popov, *Zavodskaya Lab.* **14**, 34–40(1948).—Two methods are proposed: (1) acid method for WO_3 concns. up to 0.10–0.20% and (2) acid-alk. method for all concns. (1) Moisten 0.5–1.0 g. of a 300–350-mesh sample with 0.5 ml water and decomp. with 3 ml. of concd. HCl on a water bath. If As is present, remove by the Falcev method (*C.A.* **34**, 1885⁹); in this case add 3 ml. of concd. HCl, 0.5–1.0 g. hydrazine, and 0.1–0.2 g. KBr and evap. to 3 ml. Dil. with 3 ml. cold water, filter, and wash not over 5–6 times with warm 1% HCl. Dil. the filtrate to 20 ml., neutralize HCl with dry Na_2CO_3, added in slight excess, add 2.5 ml. of 20% soln. of KCNS or NH_4CNS, and dil. to 50 ml. with 10% soln. of $SnCl_2$ in concd. HCl. Stir thoroughly and, after 45 min., compare with standards prepd. at the same time (*C.A.* **40**, 1110⁹). (2) Decomp. the sample as above, wash 5–6 times with warm 1% HCl to remove Fe and treat the residue with warm (40–50°) 5% NaOH soln. Filter, and wash with hot 0.5% NaOH soln. Dil. the filtrate and neutralize with 20% NaOH soln. Test an aliquot as above. B. Z. Kamich

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

CA

7

Use of 1-naphthylamine in the detection of gold. M. A. Popov. *Zavodskaya Lab.* 14, 1050(1948).—Place on filter paper a drop of alc. soln. of 1-naphthylamine and then a drop of the test soln. A blue-violet coloration indicates presence of Au. B. Z. Kamich

METALLURGICAL LITERATURE CLASSIFICATION

POPOV, M. A.

USSR/Chemistry - Gold - Detection Jan 1948
Chemistry - Naphthylamine

"Use of Alpha-Naphthylamine to Detect Gold," M. A. Popov, Cent Lab, Western Siberian Geol Adm, ½ p

"Zavod Labor" Vol XIV, No 1

Brief description of subject method, used particularly for quantitative determination, based on an oxidizing-reducing process.

6176

POPOV, M. A.

USSR/Chemistry - Isobutyl Alcohol Mar 1948
Chemistry - Amination

"Catalytic Amination of Primary Isobutyl Alcohol," M. A. Popov, Lab Org Chem, Crimean Med Inst imeni I. V. Stalin, 5 pp

"Zhur Obshch Khim" Vol XVIII (LXXX), No 3

Studies on 11 catalysts showed that activated charcoal (I) and platinized silical gel (II) produce best results. Optimum temperature when using I is 400 to 450°, while for II it was between 350 and 400°. More gas is released when using II. More hydrogen is released when alcohol is aminized with II as a catalyst. Submitted 18 Feb 1947.

69T16

POPOV, M. A.

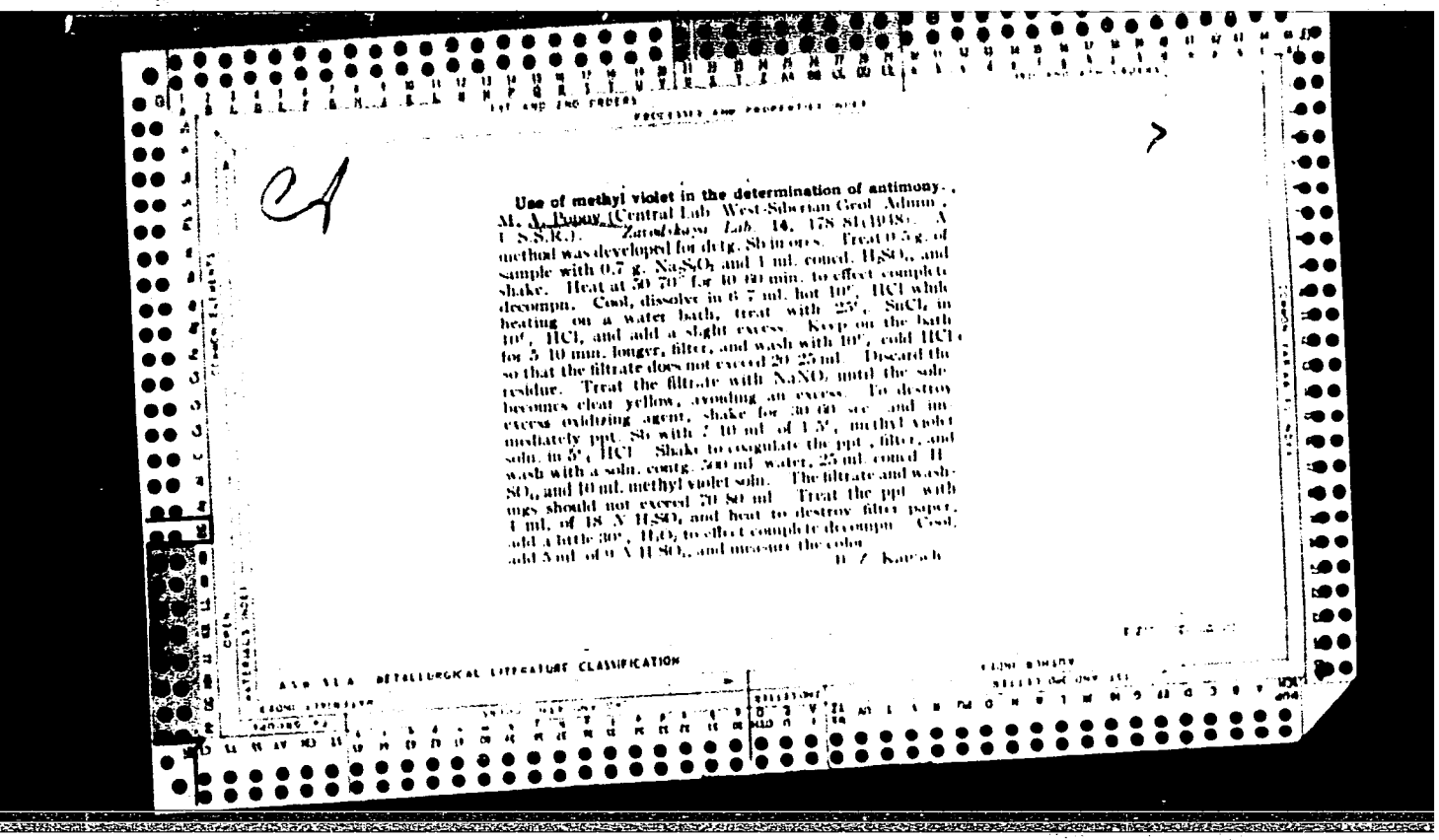
USSR/Chemistry - Analysis, Quantitative May/Jun 1948
Chemistry - Cadmium, Analysis, Determination

"The Use of Methyl Violet in Quantitative Analysis, Determination of Cadmium," M. A. Popov, Cen Lab, Western Siberia Geol Adm, Novosibirsk, 4½ pp

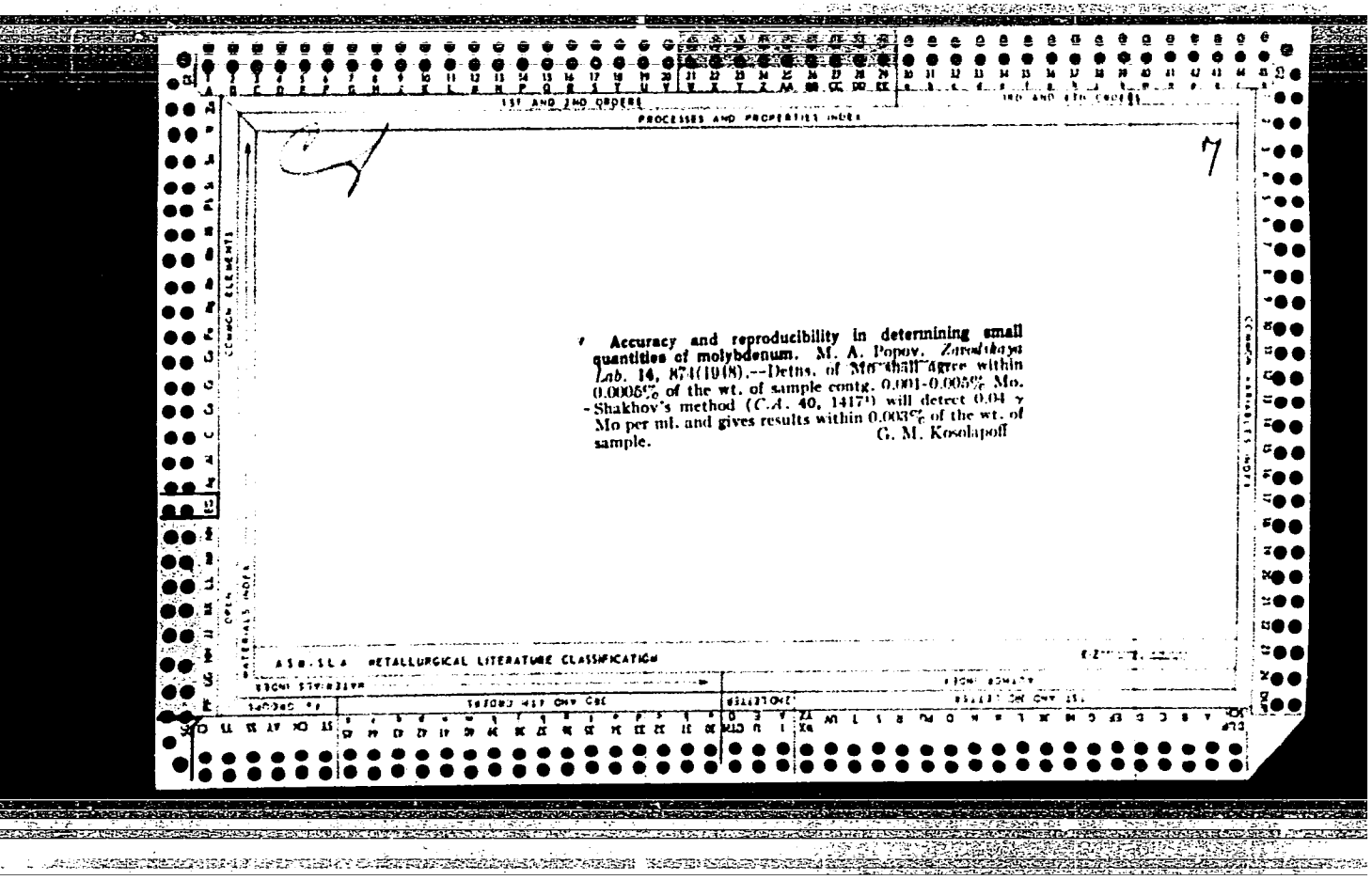
"Zhur Analit Khimii" Vol III, No 3

Describes new method for quantitative separation of cadmium with aid of methyl violet. Method is simple, gives completely satisfactory results, and is adaptable for mass operation. Submitted Jun 1947.

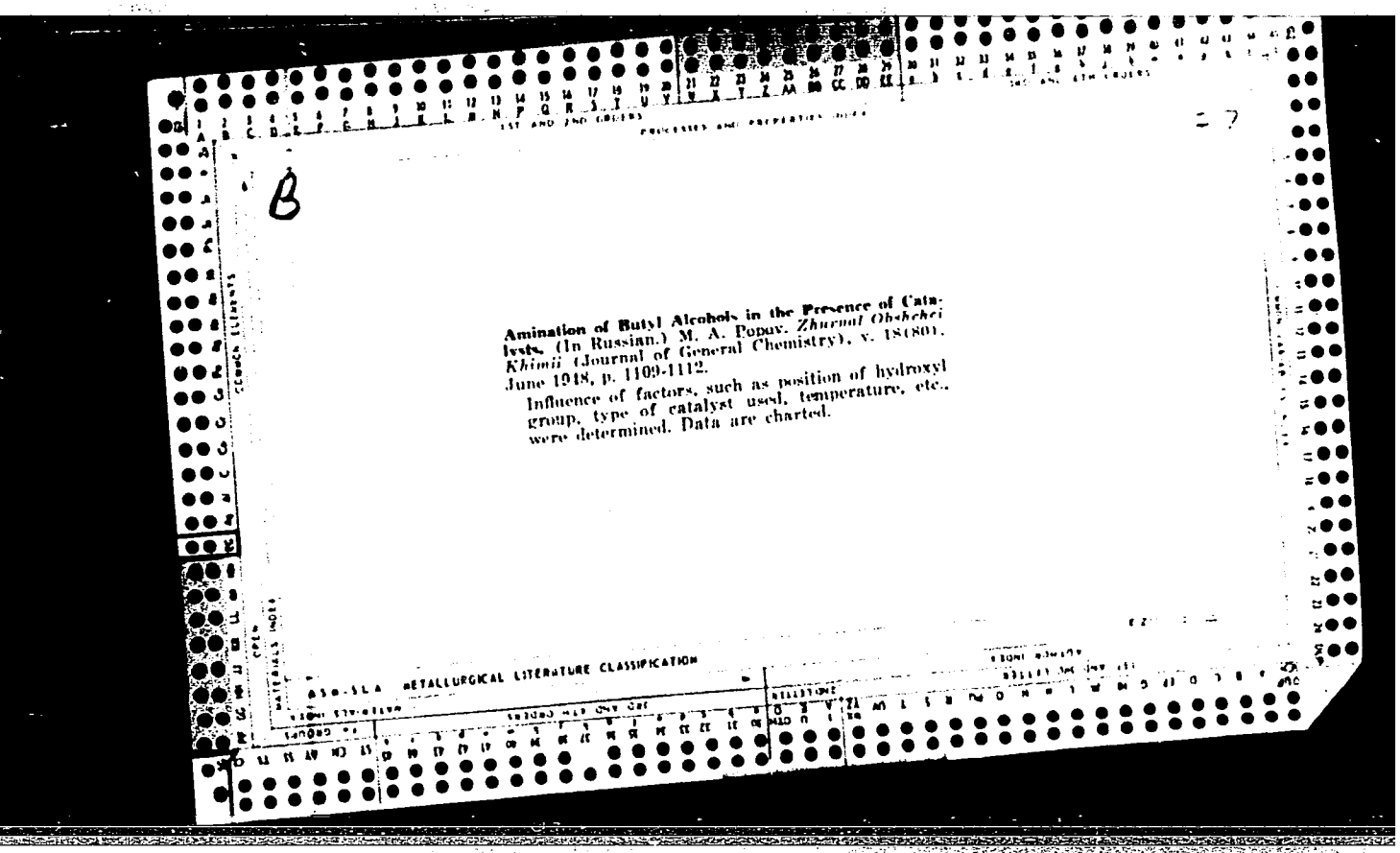
75T13



Use of methyl violet in the determination of antimony.
M. A. Pupov (Central Lab West-Siberian Geol. Admin., U.S.S.R.). Zavodskaya Lab. 14, 178 81(1948).—A method was developed for detg. Sb in ores. Treat 0.5 g. of sample with 0.7 g. $Na_2S_2O_5$ and 1 ml. concd. H_2SO_4, and shake. Heat at 50–70° for 40–60 min. to effect complete decompn. Cool, dissolve in 6–7 ml. hot 10% HCl while heating on a water bath, treat with 25% $SnCl_2$ in 10% HCl, and add a slight excess. Keep on the bath for 5–10 min. longer, filter, and wash with 10% cold HCl so that the filtrate does not exceed 20–25 ml. Discard the residue. Treat the filtrate with $NaNO_2$ until the sole becomes clear yellow, avoiding an excess. To destroy excess oxidizing agent, shake for 30–60 sec. and immediately ppt. Sb with 7–10 ml. of 1% methyl violet soln. in 5% HCl. Shake to coagulate the ppt., filter, and wash with a soln. contg. 500 ml. water, 25 ml. concd. H_2SO_4, and 10 ml. methyl violet soln. The filtrate and washings should not exceed 70–80 ml. Treat the ppt. with 1 ml. of 18 N H_2SO_4, and heat to destroy filter paper, add a little 30% H_2O_2 to effect complete decompn. Cool, add 5 ml. of 9 N H_2SO_4, and measure the color.
H. Z. Karcsch



Accuracy and reproducibility in determining small quantities of molybdenum. M. A. Popov. *Zavodskaya Lab.* 14, 874(1948).--Deths. of Mo shall agree within 0.0005% of the wt. of sample contg. 0.001-0.005% Mo. Shakhov's method (*C.A.* 40, 1417[5]) will detect 0.04 γ Mo per ml. and gives results within 0.003% of the wt. of sample.
G. M. Kosolapoff

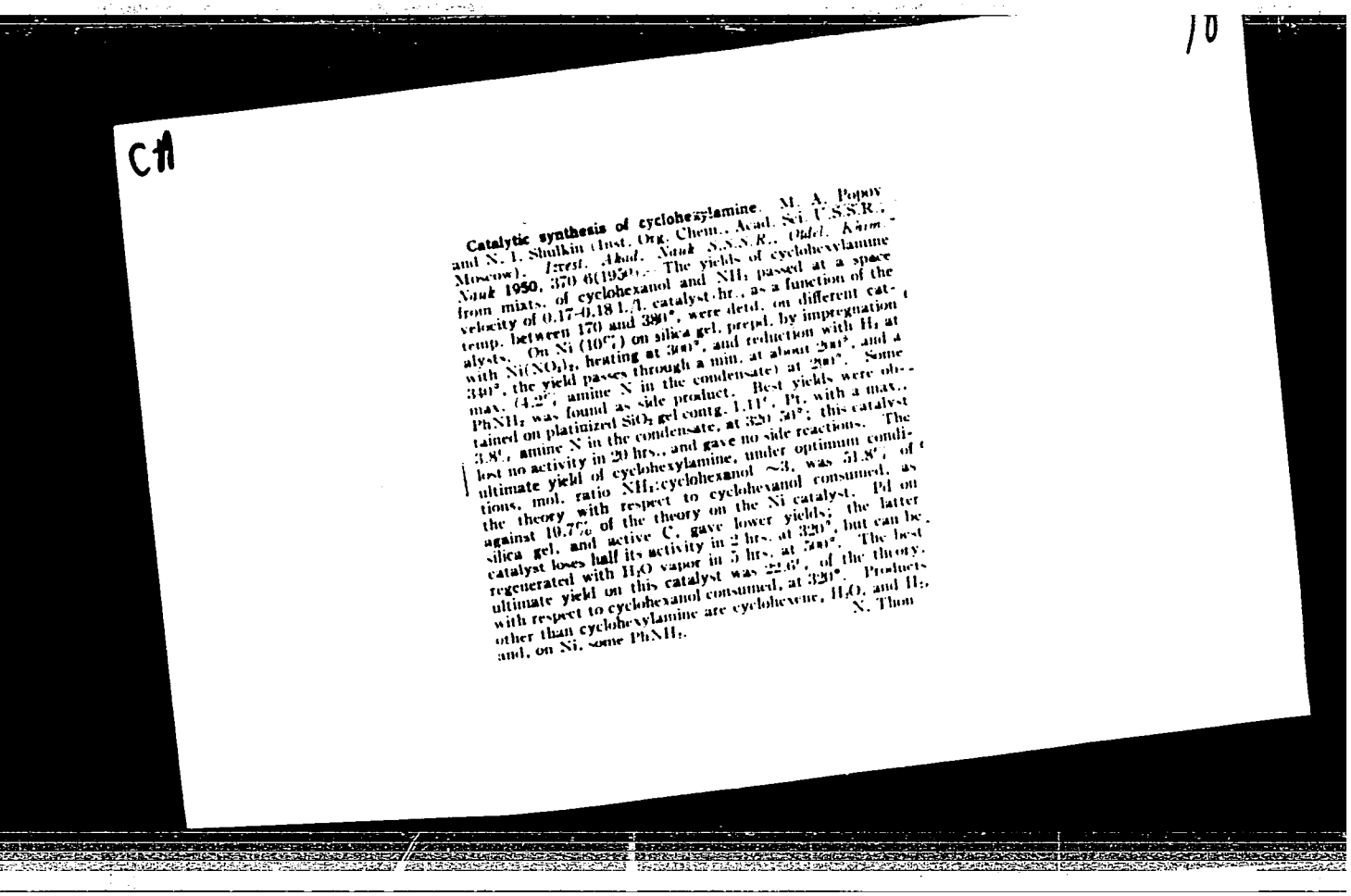


B

Amination of Butyl Alcohols in the Presence of Catalysts. (In Russian.) M. A. Popov. *Zhurnal Obshchei Khimii* (Journal of General Chemistry), v. 18(80), June 1948, p. 1109-1112.

Influence of factors, such as position of hydroxyl group, type of catalyst used, temperature, etc., were determined. Data are charted.

A50-51A METALLURGICAL LITERATURE CLASSIFICATION



CA

10

Catalytic synthesis of cyclohexylamine. M. A. Popov and N. I. Shulkin (Inst. Org. Chem., Acad. Sci. U.S.S.R., Moscow). *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* **1950**, 370-6(1950).—The yields of cyclohexylamine from mixts. of cyclohexanol and NH_3 passed at a space velocity of 0.17–0.18 l./l. catalyst/hr., as a function of the temp. between 170 and 390°, were detd. on different catalysts. On Ni (10%) on silica gel, prepd. by impregnation with $Ni(NO_3)_2$, heating at 300°, and reduction with H_2 at 340°, the yield passes through a min. at about 240°, and a max. (4.2%, amine N in the condensate) at 280°. Some $PhNH_2$ was found as side product. Best yields were obtained on platinized SiO_2 gel contg. 1.11% Pt, with a max., 3.8%, amine N in the condensate, at 330–50°; this catalyst lost no activity in 20 hrs., and gave no side reactions. The ultimate yield of cyclohexylamine, under optimum conditions, mol. ratio NH_3:cyclohexanol ~3, was 51.8%, of the theory with respect to cyclohexanol consumed, as against 10.7% of the theory on the Ni catalyst. Pd on silica gel, and active C, gave lower yields; the latter catalyst loses half its activity in 2 hrs. at 320°, but can be regenerated with H_2O vapor in 5 hrs. at 500°. The best ultimate yield on this catalyst was 22.6%, of the theory, with respect to cyclohexanol consumed, at 320°. Products other than cyclohexylamine are cyclohexene, H_2O, and H_2, and, on Ni, some $PhNH_2$.

N. Thon

1957

Reductive catalytic amination of ketones. M. A. Popov and N. I. Shuikin. *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1951, 140-4. Passage of Me_2CO or cyclohexanone vapors with NH_3 and H_2 over platinized silica gel (cf. *I*, 43, 1901) at 62–240° results in considerable formation of amines; even at 62° primary amines comprise 18% of the total 1.3% amine-N; the best results with Me_2CO are obtained at about 210° when as much as 9% amino-N is found in the catalyzate. A higher temp. (300°) drops the yield. Cyclohexanone is aminated at somewhat higher temps., but even at 160° an 8.3% yield of amino-N is formed; the best yield of amino-N is 12.7% at about 200° operating temp. *Iso-PrNH*$_2$ and *cyclohexylamine* were identified directly, the former being best isolated through its HCl salt.

G. M. Kosolapoff

POPOV, M.A.

Methods of accelerated chemical analysis. Trudy lab.geol. upr. no.1:9-30 '51. (MLRA 7:11)

1. TSentral'naya laboratoriya Zapadno-Sibirskogo geologicheskogo upravleniya.
(Mineralogy, Determinative)
(Ores--Sampling and estimation)

FOFOV, M. A.

FOFOV, M. A. - "Action of Ammonia on Certain Oxygen-Containing Organic Compounds in the Presence of Catalysts." Sub 9 Oct 52, Inst of Organic Chemistry, Acad Sci USSR. (Dissertation for the Degree of Doctorates in Chemical Sciences).

SO: Vechernaya Moskva January-December 1952

POPOV, M. A.

M. A. Popov and N. I. Shuikin. A reductive contact-catalytic amination of ketones. P. 1140.

Inst. of Organic Chem.
Acad. of Sci., USSR.
Dec. 13, 1950.

SO: Bulletin of the Acad. of Sciences, Izvestia (USSR) Section on Chemical Sciences, No. 2. (March-April 1951)

POPOV, M.A.; TITOV, V.I., redaktor; BORISOV, A.S., redaktor.

[Field methods of chemical analysis] Polevye metody khimicheskogo analiza. Izd. 2. Moskva, Gos. izd-vo geol. lit-ry, 1953. 125 p. (MLRA 7:1)

(Mineralogy, Determinative) (Colorimetry)

Popov, M A.

4

Catalytic amination of ketones of different structures.
M. A. Ponov, N. I. Shulkin, and O. L. Baranovskaya.
Bull. Acad. Sci. U.S.S.R., Div. Chem. Sci. 1953, 81–4
(Engl. translation).—See *C.A.* 48, 3246d. H. L. H.

Popov, M. A.

Chemical Abst.
Vol. 48 No. 6
Mar. 25, 1954
Organic Chemistry

Catalytic amination of ketones of different structures. M. A. Popov, N. I. Shuikin, and O. L. Baranovskaya. *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1953, 91–5; cf. *C.A.* 45, 9465c.—Reductive amination of ketones over Pt-silica gel yields only primary amines, the best temp. being 170–240°. Sym. aliphatic ketones give better yields than unsym. ketones. Et_2CO gave 34% amine in the condensate, Pr_2CO gave 41.4%, MeEtCO 23.9%, $MeCOC_5H_{11}$ 16.8%, and cyclopentanone 11.3%, in the best runs. The ketone vapors were passed along with excess H and NH_3 through a tube contg. 80 ml. platinized silica gel and the effluent was condensed. The products b.p., d_{20}, n_D^{20} obtained were: *3-aminopentane*, b_{748} 80°, 0.7479, 1.4063; *4-aminoheptane*, b_{748} 138–40°, 0.7057, 1.4178; *2-aminobutane*, b_{748} 61–3°, 0.7165, 1.3948. Cyclopentanone gave poor results because of much tar formation. G. M. K.

POPOV, M.A.

USSR/ Chemistry - Organic chemistry

Card 1/1 Pub. 40 - 15/26

Authors : Popov, M. A., and Shuykin, N. I.

Title : Catalytic amination of alcohols

Periodical : Izv. AN SSSR. Otd. khim. nauk 2, 308 - 313, Mar-Apr 1955

Abstract : Experiments were conducted to determine whether the conversion of alcohols into amines is followed by an intermediate phase of formation of aldehydes, ketones, ethers or unstable alcohol-catalyst compounds. It was established that amines are formed during catalytic amination of alcohols through direct separation of water elements from the alcohol and ammonia molecules or directly from the amine or alcohol during their collision on the surface of the catalyst. The most favorable conditions for the amination of alcohols were found to be in the presence of platinum coated silica gel or active carbon as catalysts. Twenty-six references: 11 Russian and USSR, 10 German, 2 USA and 3 French (1880-1953). Tables.

Institution : Acad. of Sc., USSR, The N. D. Zelinskiy Inst. of Organ. Chem.

Submitted : March 16, 1954

POPOV,M.A.

Letter to the editor. Zav.lab.21 no.7:882 '55. (MLRA 8:10)
(Chemistry, Analytic)

POPOV, M.A.

"Qualitative analysis of ores and minerals by trituration".
Zav.lab.21 no.10:1271-1272 '55. (MLRA 9:1)

1.TSentral'naya laboratoriya Zapadno-Sibirskogo geologicheskogo upravleniya.
(Ores--Sampling and estimation)(Chemical tests and reagents)
(Isakov, P.M.)

POPOV, M.A.

Coprecipitation of lead with barium in the presence of excessive sulfuric acid. Zav.lab.21 no.12:1430-1431 '55. (MLRA 9:4)

1.TSentral'naya laboratoriya Zapadno-Sibirskogo geologicheskogo upravleniya.
(Lead--Analysis) (Barium--Analysis)

POPOV, M.A.

USSR/ Chemistry - Organic chemistry

Card 1/1 Pub. 22 - 21/51

Authors : Popov, M. A., and Shuykin, N. I., Memb. Corresp. of Acad. of Sc. USSR

Title : Catalytic synthesis of cyclopentylamine

Periodical : Dok. AN SSSR 101/2, 273-276, Mar 11, 1955

Abstract : The synthesis of cyclopentylamine (high yield) through reduction amination of various ketones in vaporous phase in the presence of a suitable catalyst is described. In view of the fact that the catalyst in this case was required to produce reducing and amination effects it was decided to use nickel on pumice or nickel on active Al_2O_3 in the role of catalysts. The choice of the above-mentioned catalysts was found to bring successful results. Five references: 2 USSR, 2 German and 1 French (1885-1953). Table.

Institution : Acad. of Sc. USSR, The N. D. Zelinskiy Inst. of Org. Chem.

Submitted : October 4, 1954

POPOV, M.A.

Fractional reaction for cobalt. Zhur.anal.khim. 11 no.3:357-358 My-Je '56. (MLRA 9:8)

1. TSentral'naya laboratoriya Zapadno-Sibirskogo geologicheskogo (Cobalt)

POPOV, M. A.

Fine test for cobalt. M. A. Popov. *J. Anal. Chem. U.S.S.R.* 11, 360-70(1950)(English translation).--See *C.A.* 50, 16330d. B. M. R.

Chem 1

Popov, M. A.

Phase analysis of dolomitized gypsum-bearing rocks. M. A. Popov. *Zavodskaya Lab.* 22, 167-80(1956).—A method for separate detn. of chlorides, sulfates, and carbonates was used, based on the selective soln. in alc., H_2O, and HCl. Borates, phosphates, and silicates are distributed in these 3 solns. The hygroscopic moisture is detd. by drying at 60°, and the crystn. water at 215–25°. W. M. Sternberg

Cent. Lab. West Siberian Geological Dept.

Popov, M.A.

POPOV, M.A.; SHUYKIN, N.I.; BEL'SKIY, I.F.

Action of ammonia upon cycloheptanone in the presence of nickel catalyst. Izv.AN SSSR.Otd.khim.nauk. no.7:858-862 Jl '57. (MIRA 10:10)

1.Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.
(Ammonia) (Cycloheptanone) (Catalysts, Nickel)

AUTHORS: Popov, M. A., Shuykin, N. I. SOV/62-58-6-10/37

TITLE: The Catalytic Synthesis of Nitryls(Kataliticheskiy sintez nitrilov) Communication 1. The Cyanizing of Butanol-1 by Means of Ammonia in the Presence of Nickel-Alumina-Catalyzers(Soobshcheniye 1. Tsianirovaniye butanola-1 ammiakom v prisutstvii nikel'-glinozemnykh katalizatorov)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 6, pp. 713 - 718 (USSR)

ABSTRACT: According to the authors' opinion olefines and alcohols belong to the most easily accessible substances which it is possible to convert into nitryls under the influence of ammonia. Because of the great practical importance of nitryls the authors endeavored to find an efficacious catalyst in order to bring about the synthesis of alcohol or olefine and ammonia. Butanol-1 and hexene-1 served as the initial substances for the investigation. Investigations were carried out of the reaction of the cyanizing of butanol-1 by ammonia in the presence of various samples of the nickel-alumina catalyst at temperatures of 240 - 400° and under atmospheric pressure. For the cyanizing of butanol-1 a catalyst

Card 1/2

The Catalytic Synthesis of Nitryls. Communication 1. The Cyanizing of Butanol-1 by Means of Ammonia in the Presence of Nickel-Alumina-Catalyzers SOV/62-58-6-10/37

was found to be the most effective which consists of 3% reduced nickel on active aluminum oxide. In the presence of this catalyzer (at 300°) an 81,5% yield of nitryl (of n.butyrate) could be obtained. Under similar conditions and in the presence of a cobalt-nickel catalyst of hexene-1, only 3,8 to 6,7% of the corresponding nitryl is formed. There are 2 tables and 11 references, 3 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N.D.Zelinskogo Akademii nauk SSSR(Institute of Organic Chemistry imeni N.D.Zelinskiy, AS USSR)

SUBMITTED: December 4, 1956

1. Nitryls--Synthesis 2. Butanol--Chemical reactions 3. Ammonia --Chemical reactions 4. Hexene--Chemical reactions 5. Alumina-nickel catalysts--Performance 6. Cobalt-nickel catalysts--Performance

Card 2/2

POPOV, M.A.

Qualitative determination of individual cobalt minerals. Zap. Vses. min. ob-va 88 no.1:109-110 '59. (MIRA 12:3)
(Mineralogy, Determinative) (Erythrite) (Cobaltocalcite)

86413
S/062/60/000/008/021/033/XX
B013/B055

1153
2209
1375

5.3610

AUTHORS: Popov, M. A. and Shuykin, N. I.

TITLE: Catalytic Synthesis of Nitriles. Communication 3. Preparation of Aromatic Nitriles

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1960, No. 8, pp. 1451-1456

TEXT: The present paper deals with the catalytic synthesis of nitriles from aromatic alcohols and ammonia in the presence of nickel/aluminum-oxide catalysts. The investigation was undertaken with a view to finding the most suitable conditions of synthesis, and to study the effect of the phenyl radical on the composition of the reaction products. Experiments were performed with benzyl alcohol, β-phenyl ethanol and γ-phenyl propanol. The reaction was carried out at 270-390°C and atmospheric pressure in a continuous system. The catalysts contained 3, 7.5 and 15% reduced nickel precipitated on aluminum oxide. Catalyst preparation and experimental apparatus have been described in Ref. 7. Systematic experiments showed that at 390°C, benzonitrile is formed from ammonia and benzyl alcohol on a 3% nickel/aluminum-oxide catalyst in 51.7% theoretical yield. The

Card 1/3

86413

Catalytic Synthesis of Nitriles. Communication 3. Preparation of Aromatic Nitriles

S/062/60/000/008/021/033/XX
B013/B055

reaction of β-phenyl ethanol with ammonia at 300°C and of γ-phenyl propanol with ammonia at 330°C over 7.5% nickel/aluminum-oxide catalysts also lead to the formation of the corresponding phenyl acetonitrile (44.8% yield) and β-phenyl propionitrile (50.8% yield). The authors describe the reaction conditions given above as optimal. The following reaction mechanism is assumed to explain the formation of small quantities of amines and aromatic hydrocarbons as by-products in the cyanation of aromatic and aliphatic (Ref. 7) alcohols. The experiments showed that the amine formation is independent of the amount of nitrile formed. The first step is therefore assumed to be the conversion of alcohol to the primary amine. Formation of secondary and tertiary amines can then proceed according to the scheme: $2ArCH_2NH_2 \longrightarrow (ArCH_2)_2NH + NH_3$. Part of the ammonia is decomposed to nitrogen and hydrogen on the catalyst surface: $2NH_3 \longrightarrow N_2 + 3H_2$. The hydrogen so formed, together with the hydrogen formed in the main reaction, reduces a certain amount of the final nitrile to the aromatic hydrocarbon. There are 4 tables and 24 references: 6 Soviet, 8 US, 6 German, 6 French, 3 British, and 1 Belgian.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences USSR)

Card 2/3

86413

Catalytic Synthesis of Nitriles. Communication 3. Preparation of Aromatic Nitriles

S/062/60/000/008/021/033/XX
B013/B055

SUBMITTED: February 2, 1959

Card 3/3

POPOV, M.A.

Titration of calcium with trilon in the presence of large amounts of aluminum. Zav.lab. 26 no.5:540-542 '60.
(MIRA 13:7)

1. TSentral'naya laboratoriya Novosibirskogo geologicheskogo upravleniya.
(Calcium--Analysis) (Aluminum)

S/032/60/026/06/40/044
B010/B016

AUTHOR: Popov, M. A.

TITLE: Exhibition of Reagents of the Republic of Czechoslovakia in Novosibirsk

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 6, p. 776

TEXT: The company "Chemapol" arranged in Novosibirsk, from March 16 to 26, 1960, an exhibition of reagents and preparations manufactured in Czechoslovakia. In 16 stands about 300 reagents (among them 200 organic ones) were shown. Of particular interest were the complexometric indicators and indicator papers. The Sibirskoye otdeleniye Akademii nauk (Siberian Branch of the Academy of Sciences), the sovnarkhoz and Novosibirskoye otdeleniye Vsesoyuznogo khimicheskogo obshchestva im. D. I. Mendeleyeva (Novosibirsk Department of the All-Union Chemical Society imeni D. I. Mendeleyev) were presented with the exhibits for gifts. J. Zyka, Professor of the Prague Karl University delivered two lectures on the research work done by its chemists.

Card 1/1

POPOV, M.A., nauchnyy sotrudnik

Use of ozone for the final treatment of effluents of an oil refinery; preliminary report. Gig. i san. 25 no. 5:92-93 My '60. (MIRA 13:10)

1. Iz Omskogo nauchno-issledovatel'skogo instituta epidemiologii, mikrobiologii i gigiyeny.
(PETROLEUM WASTE) (OZONE)

L 45615-65 EWT(1)/EWG(v) Po-4/Pe-5/Pq-4/Pac-4/Pae-2 GW

ACCESSION NR: AP5006456 S/0021/65/000/002/0196/0199

AUTHOR: Popov, M. A. (Popov, N. A.)

TITLE: Determination of the period of free diurnal mutation of the earth by latitude observations

SOURCE: AN UkrSSR. Dopovidi, no. 2, 1965, 196-199

TOPIC TAGS: earth mutation, nutation period, nutation amplitude, latitude observation

ABSTRACT: The earth's nutation is found to have an amplitude a = 0.020" ± 0.004" on the basis of a long series of latitude observations carried out in 1939 - 1963 at the Poltava Observatory on the two bright zenith stars α-Persei and η-Ursae Majoris. The measurements were made with a Zeiss zenith telescope (d = 135 mm, F = 1760 mm). To check on the degree to which the theoretically calculated period of the nutation corresponds to the observed value, the amplitudes were calculated for nine different values of the periods, ranging from $23^h56^m47^s$ to $23^h57^m01^s$ and have shown that the maximum of the amplitude curve corresponds to $23^h56^m53.5^s$

Card 1/2

L 45615-65

ACCESSION NR: AP5006456

sidereal time, which is in good agreement with the result obtained by M. S. Molodenskiy for a model in which the earth has a liquid and oblate core. This report was presented by S. I. Subbotin. Orig. art. has: 1 figure, 3 formula, and 1 table.

ASSOCIATION: Poltavs'kaya gravimetrychna observatoriya AN URSR (Poltava Gravimetric Observatory AN UkrSSR)

SUBMITTED: 06Jan64 ENCL: 00 SUB CODE: ES

NR REF SOV: 005 OTHER: 000

Card 2/2

POPOV, M.A.; LOBANOVA, N.S.

Catalytic alkylation of aniline with ethanol. Zhur. prikl. khim. 36 no.4:856-859 Ap '63. (MIRA 16:7)

(Aniline) (Alkylation) (Ethanol)

POPOV, M.A.; SHUYKIN, N.I.

Catalytic synthesis of nitriles. Report No.3: Preparation of aromatic nitriles. Izv.AN SSSR Otd.khim.nauk no.8:1451-1456 Ag '60. (MIRA 15:5)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Nitriles)

POPOV, M.A.

Crawling of rock and safeguarding structures at mines in the Krivoy Rog Basin. Gor. zhur. no.4:64-68 Ap '61. (MIRA 14:4)

1. Glavnyy marksheyder upravleniya gornodobyvayushchey promyshlennosti Dnepropetrovskogo sovnarkhoza.
(Krivoy Rog Basin—Iron mines and mining)
(Mining geology) (Earth movements)

POPOV, M.A.; SHUYKIN, N.I.

Catalytic synthesis of nitriles. Report No.5: Cyanation of isostructural alcohols by ammonia. Izv.AN SSSR.Otd.khim.nauk no.10:1855-1858 O '61. (MIRA 14:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR. (Alcohols) (Ammonia)

ZOLOTAVIN, V.L., prof.; RESHETNIKOVA, Ye.A.; PILIPENKO, A.T.(Kiyev); SHCHERBOV, D.P. (Alma-Ata); POPOV, M.A.; NAZARCHUK, T.N.

Supplying laboratories with chemical reagents. Zav.lab. 26 no.8:1034-1036 '60. (MIRA 13:10)

1. Ural'skiy politekhnicheskiy institut, Sverdlovsk (for Reshetnikova). 2. Rukovoditel' metodicheskoy gruppy TSentral'noy laboratorii Novosibirskogo geologicheskogo upravleniya (for Popov). 3. Zaveduyushchiy laboratoriyey khimicheskogo i fazovogo analiza Instituta metallokeramiki i spetsial'nykh splavov AN USSR (for Nazarchuk).
(Chemical laboratories) (Chemical tests and reagents)

POPOV, M.A.; SHUYKIN, N.I.

Catalytic synthesis of nitriles. Report No. 4: Cyanation of allyl alcohol by ammonia. Izv.AN SSSR Otd.khim.nauk no.4:645-648 Ap '61. (MIRA 14:4)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Allyl alcohol) (Propionitrile)

MARINESCU, Ioan, ing. (Bucuresti); POPOV, Mihai, ing. (Bucuresti); TATARU, Nicolae, Ing. (Bucuresti)

Employment of the analogue computer to solve the circuits with three and four energy accumulators. Electrotehnica 9 no.10:351-357 O '61.

1. Cercetator la Institutul de Cercetari Electrotehnice (for Marinescu). 2. Sef al Laboratorului de automatizari de la Institutul de Energetica al Academiei R.P.R. (for Popov). 3. Cercetator la Institutul de Energetica al Academiei R.P.R. (for Tataru).

DVORYANKIN, F. A.; POPOV, M. D.

Paleontology

In defense of Darwinism in paleontology. Izv. AN SSSR Ser. biol. No. 1, 1953.

SO: Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

POPOV, M. D.

Tiutiun, Tobacco. Sofiia, Zemizdat, 1951. 416 p.

1. Tobacco - Bulgaria. I. Popov, M. D.

POPOV, M.

Popov, M., Popov, I., "Method for Reducing Nicotine in Tobacco." p. 2 (IZVESTIIA, Vol. 2, 1951, Sofiya.)

SO: Monthly List of East European Accessions, Vol. 3, No. 3, Library of Congress, March 1954, Uncl.

BULGARIA/Cultivated Plants. Grains. M

Abs Jour: Ref Zhur-Biol., No 5, 1958, 20292.

Author : M. D. Popov
Inst : Biological Institute of the Bulgarian Academy of Sciences.
Title : The Stimulation of Rice, Corn and Wheat Seeds with Penicillin. (Stimulirovaniye semyan risa, kukuruzy i pshenitsy penitsillinom)

Orig Pub: Dokl. Bolg. AN, 1956, 9, No 4, 77-80.

Abstract: The experiments were conducted in the Institute of Biology of the Bulgarian Academy of Sciences. The seeds were germinated and then kept during 30 days in a solution of penicillin having concentrations of 0; 10,000; 50,000; 100,000; 200,000; and 300,000 units. This method stimulates the germination and sprouting of seeds and even increases the productivity of the plants.

Card : 1/1

POPOV M.

BULGARIA / General Biology. Genetics. B-5

Abs Jour : Ref Zhur - Biol., No 11, 1958, No 47611

Author : Popov, M.
Inst : Bulgarian Academy of Sciences
Title : Studies on Heterosis in Tobacco Plants

Orig Pub : Doklady Bolgar Akad Nauk, 9, No 4, 81-83 (1956)

Abstract : The crossing of eastern cigarette-type Kozarsko tobacco No 541 of the Parushchitsa variety (paternal form) with large-leaf cigarette tobacco of the Virginia Brayt variety (maternal form) is reported. A heterosis effect is observed as early as the germination stage; this effect is intensified with the age of the hybrids. Hybrid plants were found to be 80% higher than the starting parental varieties and to produce 56.6% more leaves.

Card 1/1

Country : Bulgaria
CATEGORY : CULTIVATED PLANTS. General Problems. M

ABS. JOUR. : RZBiol., No. 1 1959, No. 1556

AUTHOR : Popov, M.D.
INST. : Inst. of Biology, Bulgarian Acad. Sciences
TITLE : Penicillin Stimulation of the Seeds of Agricultural Crops

ORIG. PUB. : Izv. In-ta biol. B"lg. AN, 1957, 8, 27-48

ABSTRACT : This is a preliminary report on seed stimulation of rice, corn, winter wheat, bean and onion. The seeds were soaked in aqueous solutions (distilled water) in various concentrations. When suitable solution concentrations and the proper times were observed in soaking the seeds, penicillin stimulated growth and development of the plants (boosting the yield, producing healthier shoots and earlier spiking). The individual cultures

CARD: 1/2

POPOV, M.

SCIENCE

Periodical: IZVESTILLA. BULLETIN Vol. 8, 1957

POPOV, M. Investigation on the quality of the tobacco seedlings and its affect on the growth, development, and productivity of the tobacco. p. 153.

Monthly List of East European Accessions (EEAI), IC. Vol. 8, no. 2 February 1959, Unclass.

POPOV, M.

Investigating the stimulating effect of potassium bromide and hexachloran on maize, cultivated under various soil moisture. p. 109

Bulgarska akademiia na naukite. Institut po biologia "Metodi Popov."
IZVESTIIA. BULLETIN. Sofia, Bulgaria., Vol. 9, 1958

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 12,
December 1959
Uncl.

POPOV, M.

Experiments in stimulation of seeds from cultivated plants with ultrasonic waves. p. 135.

Bulgarska akademiia na naukite. Institut po biologia "Metodi Popov."
IZVESTIIA, BULLETIN. Sofia, Bulgaria, Vol. 9, 1958

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 12, December 1959
Uncl.

POPOV, M.

"Influence of penicillin on the formation of roots of buds of certain plants." In French. p. 65

DOKLADY. Sofiia, Bulgaria, Vol. 12, No. 1, January/February, 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 9, No. 2, February, 1960. Uncl.

POPOV, Mikh.D.; GRIGOROV, Iv.

Testing the influence of penicillin on the growth of beans and rice under sterilized conditions of cultivation. Izv Inst biol BAN 10: 227-245 '60. (EEAI 10:4)

(PENICILLIN)
(RICE)
(BEANS)

POPOV, Mikh.D.

Experiments in stimulating millet with chemical substances in containers. Izv Inst biol BAN 10:281-287 '60. (EEAI 10:4)

(MILLET)
(CHEMICALS)
(GROWTH (PLANTS))

POPOV, Mikh. D.

Experiments in stimulating onions barley, and peas with uranyl acetate. Izv Inst biol BAN 10:297-304 '60. (EEAI 10:4)

(ONIONS)
(BARLEY)
(PEAS)
(URANYL ACETATES)
(GROWTH (PLANTS))

POPOV, M. D.

Testing the stimulating action of penicillin and aureomycin on beans and peas. Izv Inst biol BAN 11:109-127 '61.
(EEAI 10:9)

(PENICILLIN) (CHLORTETRACYCLINE) (BEANS) (PEAS)

POPOV, M. D.

Testing the stimulating action of gibberellin and other active substances on cultivated plants. Izv Inst biol BAN 11:129-159 '61. (EEAI 10:9)

(Gibberellin) (Plants)

- POPOV, Mikh. D. D-r.

Gibberellin and its effect on plants. Prir i znanie 14 no.3: 7-9 '61. (EEAI 10:7)
(Gibberellin) (Plants)

POPOV, M.D.

Study of the effect of penicillin on higher plants. Ukr. bot. zhur. 18 no.1:3-13 '61. (MIRA 14:3)

1. Bolgarskaya akademiya nauk, Institut biologii im. Metodiya Popova.
(PENICILLIN) (PLANTS, EFFECT OF ANTIOBIOTICS ON)

POPOV, Mikhail D.

Effect of giberellin, potassium bromide and penicillin on the growth of tobacco seeds before maturation. Izv. inst. biol. Popov (Sofiia) 13:133-146 '63.

POPOV, Mikhail, d-r

Application of stimulation in agriculture. Nauch zhivot 6 no.3:8-9 Jl -S '63.

POPOV, M. D., d-r, st. n.s.

Forty Eighth International Esperanto Congress and the science. Nauch zhivot 6 no.3:15 Jl-S '63.

1. Bulgarska akademiia na naukite, sekretar na Esperantska sektsiia pri SNRB.

BOROVSKIY, Boris Yevstaf'yevich; POPOV, Mikhail Dmitriyevich; PRONSHTEYN, Mark Yakovlevich; BRONSHTEYN, Ya.I., red.; PCHELKIN, Yu.V., red.; LEVONEVSKAYA, L.G., tekhn. red.; POL'SKAYA, R.G., tekhn. red.

[Manual for automobilists]Spravochnaia kniga avtomobilista. Pod red. IA.I.Bronshteina. Leningrad, Lenizdat, 1962. 482 p. (MIRA 15:10)

(Motor vehicles) (Traffic regulations) (Automobiles--Touring)

POPOV, M. D.

USSR/Electricity - Literature Nov 51

"Review of 'The Electrician's Handbook,' Numbers 1, 2, 3 and 4, Under the General Editorship of A. D. Smirnov and P. F. Solov'yev," A. A. Tayts, V. I. Pogarskiy, M. D. Popov, Engineers, Moscow

"Elektrichestvo" No 11, pp 95, 96

The 1st 4 numbers of "The Electrician's Handbook" are the following: Ye. A. Proshchin's "Assembly of Cable Lines" 271 pp, R 13.50, 1948; P. F. Solov'yev's "Wires and Electric Lighting Installations 204 pp, R 10.50, 1950; D. V. Sokolov's "Assembly of Distribution Equipment for Substations Up to 35 KV" 328 pp, R 13.25, 1950; and K. D. Kofman's "Assembly of High-Power Electrical Equipment" 288 pp, R 12.25, 1950.

201T71

00000058

POPOV, M.D.

TREASURE ISLAND BIBLIOGRAPHIC REPORT

PHASE I

Call No.: TN686.T54

BOOK

Authors: EFROIMOVICH, Yu.E., Cand. of Tech. Sciences
KRICHEVSKIY, G.M., Engineer
LEVITANSKIY, B.A., Engineer
MALAYA, R.Yu., Cand. of Tech. Sciences, deceased.
NEIFAKH, G.M., Cand. of Tech. Sciences
POPOV, M.D., Engineer
SMORODINSKIY, Ia.M., Cand. of Tech. Sciences
SOSUNOV, M.N., Engineer
STASYUK, V.N., Engineer
FEDOSEEV, L.M., Engineer
FEIGIN, V.I., Engineer
CHELYUSTKIN, A.B., Engineer
SHERENTSIS, A.N., Engineer

Full Title: A HANDBOOK FOR ELECTROTECHNICAL PERSONNEL IN FERROUS METALLURGICAL INDUSTRIES.

Transliterated Title: Spravochnik elektrika predpriatii chernoi metallurgii

Publishing Data

Originating Agency: None.

Publishing House: State Publishing House of Scientific-Technical Literature on Ferrous and Nonferrous Metallurgy (Metallurgizdat). Moscow.

No. pp.: 1167

No. copies: 14,000

Date: 1952

Tech. Ed.: None.

Editorial Staff

Compiler: Tikhomirov, I.G., Engineer

1/2

POPOV, M.D. 2/2

Call No.: TN686.T54

Full Title: A HANDBOOK FOR ELECTROTECHNICAL PERSONNEL IN FERROUS METALLURGICAL INDUSTRIES

Appraiser: None.

Editors: Shalyapin, M.G.
Levitanskiy, B.A.

Text Data

Coverage: A detailed handbook containing technical data on specifications, standards, design and operation of various types of electrical equipment in ferrous metallurgical industries: electric power supply plants and their distributing systems, transforming stations and transmission lines (high and low tension), blast furnace works, rolling mill plants, open-hearth plants, mines, electrical steel smelting and ferroalloy furnaces, sintering plants, coke plants, and electrical transport. Tables and diagrams. Subject index.

Purpose: A handbook for electrotechnical personnel of metallurgical industries.

Facilities: None.

No. of Russian references: References listed at end of each chapter.

Available: Library of Congress.

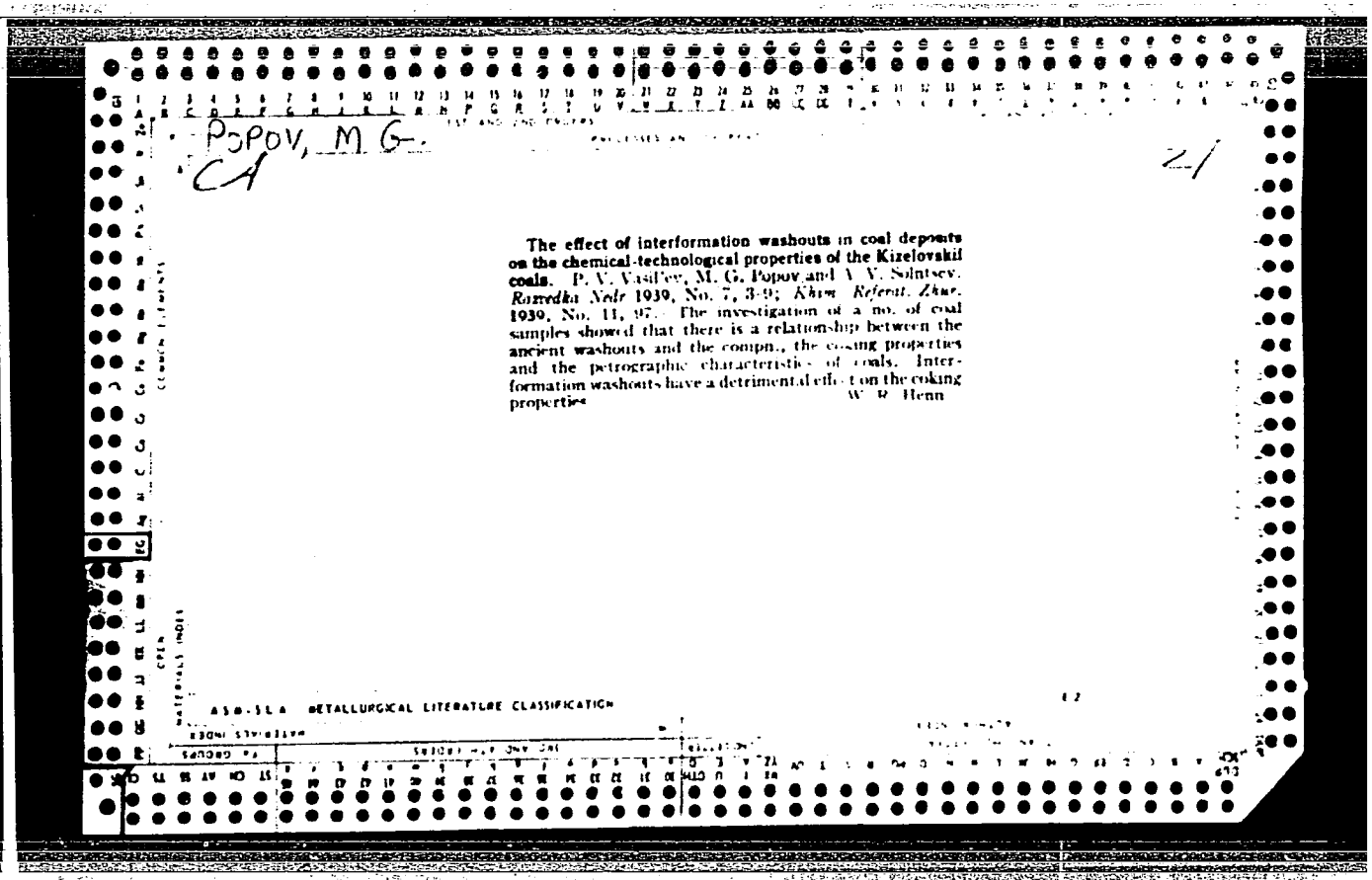
POPOV, M. D. Cand. Biolog. Sci.

Dissertation: "Morphological Cycle of Follicular Epithelium and its Significance in the Development of Ovocytes." Moscow Technical Education Institution of the Fish Industry -- MOSRYBVTUZ, 10 Oct 47.

SO: Vechernyaya Moskva, Oct, 1947 (Project #17836)

GONCHAROV, G.D.; POPOV, M.D.; ANTIPOVA, P.S.; BISHEV, L.L.

Disease among young pike perch in the Sea of Azov in 1951-1952.
Trudy VNIRO 31 no.2:249-258 '55. (MLRA 9:8)
(Fishes--Diseases and pests)

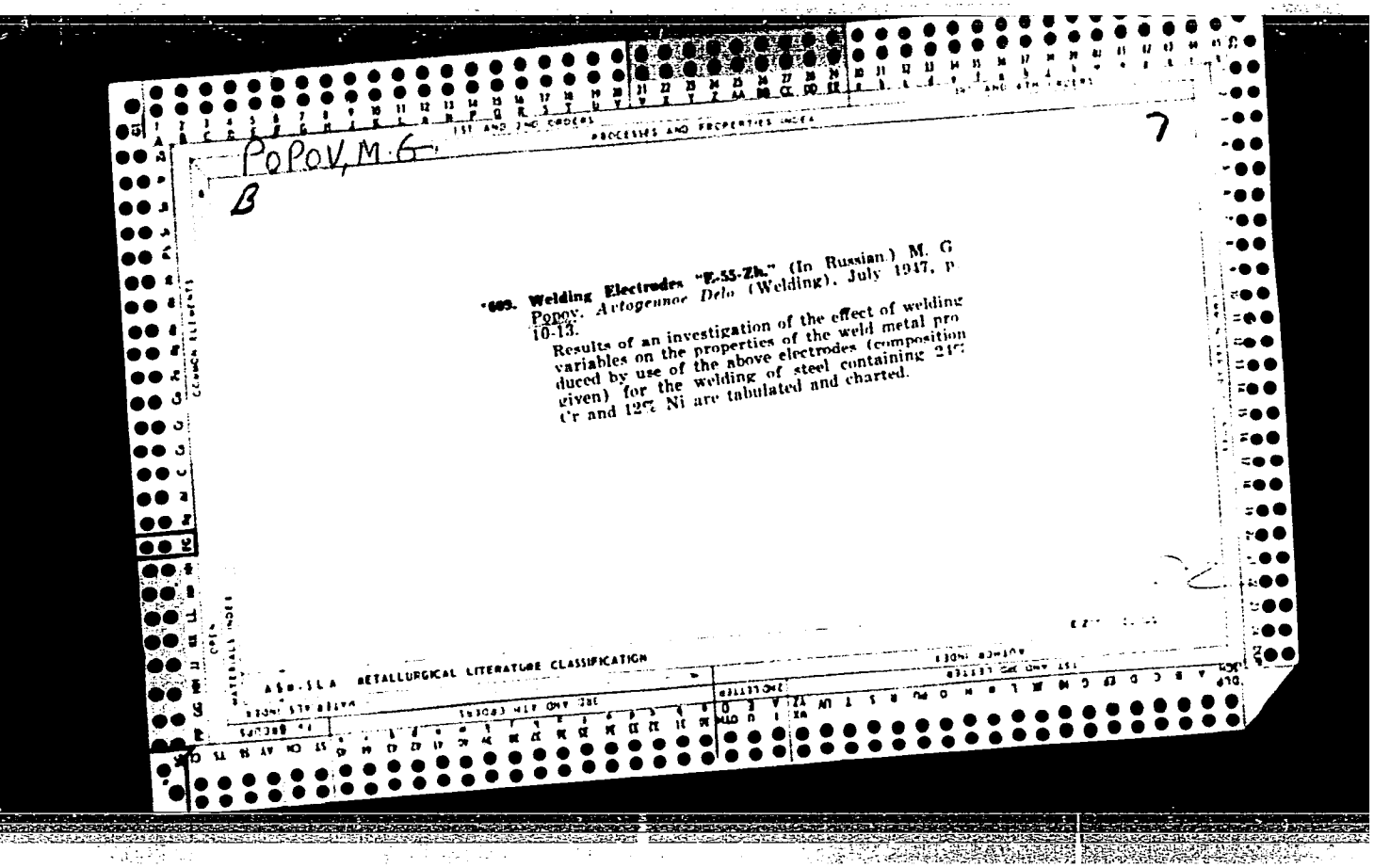


POPOV, M. G.
CA

21

The effect of interformation washouts in coal deposits on the chemical-technological properties of the Kizelovskii coals. P. V. Vasil'ev, M. G. Popov, and V. V. Solntsev. *Razvedka Nedr* 1939, No. 7, 3-9; *Khim. Referat. Zhur.* 1939, No. 11, 97.—The investigation of a no. of coal samples showed that there is a relationship between the ancient washouts and the compn., the coking properties and the petrographic characteristics of coals. Interformation washouts have a detrimental effect on the coking properties.
W. W. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



PoPoV, M.G.

B

7

*669. **Welding Electrodes "E-55-Zh."** (In Russian.) M. G Popov. *Avtogennoe Delo* (Welding), July 1947, p 10-13.

Results of an investigation of the effect of welding variables on the properties of the weld metal pro duced by use of the above electrodes (composition given) for the welding of steel containing 21% Cr and 12% Ni are tabulated and charted.

Aβ-SLA METALLURGICAL LITERATURE CLASSIFICATION

IOFOV, M. C.

Kontaktnaia stykovaia svarka detalei bol'shikh sechenii. (Vestn. Mash., 1948, no. 1, p. 44-49)

Resistance butt welding of larger section parts.

DLC: TN4.V4

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

KOMAROV, V.L., akademik, glavnyy red.;SHISHKIN, B.K., red. izdaniya;
BOBROV, Ye.G., doktor biol.nauk, prof.red.; VASIL'CHENKO, I.T.,
red.; GORSHKOVA, S.G., red.; GRIGOR'YEV, Yu.S., red.; GRUBOV, V.I.,
red.; DOROFEYEV, P.I., red.; IL'INSKAYA, I.A., red.; KLOKOV, M.V.,
red.; KUPRIYANOVA, L.A., red.; LINCHEVSKIY, I.A., red.; NOVOPOKROV-
SKIY, I.V., red.; POBEDIMOVA, Ye.G., red.; POPOV, M.G., red.;
POYARKOVA, A.I., red.; SHTEYNBERG, Ye.I., red.; TSVELEV, N.N., red.;
SMIRNOVA, A.V., tekhn.red.

[Flora of the U.S.S.R.] Flora SSSR. Moskva, Izd-vo Akad. nauk SSSR, 1958. 775 p. (MIRA 12:7)

1. Chlen-korrespondent AN SSSR (for Shishkin).
(Botany)

BOBROV, Ye.G., doktor biol.nauk, prof.; VASIL'CHENKO, I.T.; GORSHKOVA, S.G.; GRIGOR'YEV, Yu.S.; GRUBOV, V.I.; DOROFEYEV, P.I.; IL'INSKAYA, I.A.; KLOKOV, M.V.; KUPRIYANOVA, L.A.; LINCHEVSKIY, I.A.; NOVOPOKROVSKIY, I.V.; POBEDIMOVA, Ye.G.; POPOV, M.G.; POYARKOVA, A.I.; SHTEYNBERG, Ye.I.; TSVELEV, N.N.; SHISHKIN, B.K., red. izdaniya; SMIRNOVA, A.V., tekhn.red.

[Dicotyledons] Dicotyledons. Moskva, Izd-vo Akad.nauk SSSR, 1959. 775 p. (Akademiia nauk SSSR. Botanicheskii institut. Flora SSSR, vol.23) (MIRA 13:4)

(Dicotyledons)

POPOV, Mikhail Grigor'yevich [deceased]; KHRZHANOVSKIY, V.G., otv. red.; KUL'TIASOV, I.M., red.izd-va; YEGOROVA, N.F., tekhn. red.

[Principles of florogenesis] Osnovy florogenetiki. Moskva, Izd-vo AN SSSR, 1963. 133 p. (MIRA 16:11)
(Plants--Evolution)

POPOV, M. I.
Dr. Technical Sc.,

"Evaporation of Liquid Drops in a Gas Flow." Sub 27 Mar 47, Power Engineering Inst imeni G. M. Krzhizhanovskiy, Acad Sci USSR

Dissertations presented for degrees in science and engineering in Moscow in 1947

SO: Sum No. 457, 18 Apr 55

66371

21.5300 SOV/120-59-5-14/46

AUTHORS: Morozov, A.G., Nekrasov, K.G. and Popov, M.I.

TITLE: A Hodoscope Fitted with Small-diameter Counters Fed from a Pulsed Source

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 5, pp 64 - 68 (USSR)

ABSTRACT: Various fillings are used in the counters in order to obtain the best performance. Figure 1 shows how the efficiency P varies with $m = M/M_o$, a parameter specifying what fraction of the electrons produced by an ionizing event is collected by the cathode (m negative) or by the wire (m positive). M specifies the effect of voltages less than that required to initiate a discharge during the interval from t_1 (when the ionising event occurs) to t_2 (when the voltage is sufficient to cause a discharge). Eq (1) gives M in formal form. Similarly, M_o is the effect produced by a voltage sufficient to initiate a discharge in a counter whose

Card1/4

A Hodoscope Fitted with Small-diameter Counters Fed from a Pulsed Source

cathode has a diameter D and whose wire has a diameter d (Eq 2); k/p is the electron mobility in the gas at a pressure p. (The quantity α in Figure 1 is the mean number of electrons left behind in a length equal to the radius of the counter by the ionizing particle.) These curves are used to show, what is surely obvious, that the rise time of the supply pulse should be as short as possible.

Figure 2 shows the pulse-supply source, in which the two thyratrons are hydrogen-filled and give a current rising at 100 A/μsec; the duration of the output pulse is adjustable from 1.5 μsec upwards. The delay varies from 0.2 to 0.4 μsec. A capacitance of 1000 pF attached to the output lengthens the rise time from 3×10^{-8} sec to 5×10^{-8} sec.

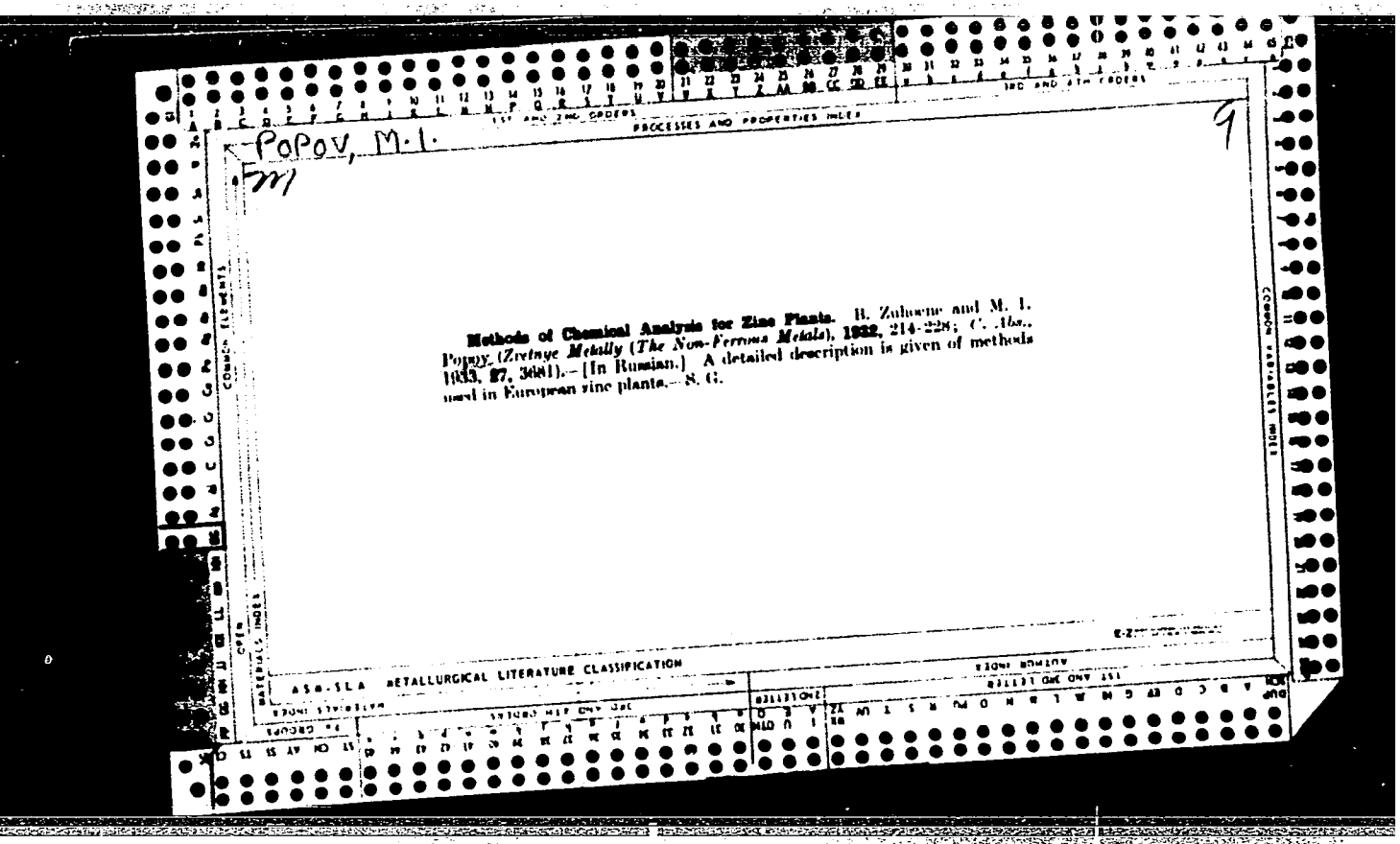
Figure 3 shows some results for two counters filled with argon-isopentane; the curves were recorded with 1 500 V pulses lasting 3 μsec, and delayed by 0.3 μsec. Here, V_o

A Hodoscope Fitted with Small-diameter Counters Fed from a Pulsed Source

is the steady (clearing) voltage applied to the counters. The rise time of the pulse cannot be made much shorter, so these counters are not usable; Figure 4 shows results for counters filled with argon-methylal, used with 2 μsec 1 500 V pulses delayed by 0.7 μsec (counter diameter 9.6 mm). Here, the methylal gives 1/6 of the total gas pressure. This design is also unsuitable. Resort is made to neon, which can be used at high pressures without demanding very high voltages. Figure 5 relates to counters 7.5 mm in diameter and containing neon only at 2 atm; the efficiency (Curve 1) and false count rate (Curves 2) are shown as functions of pulse voltage. Small clearing voltages are effective. Figure 6 gives more details for these counters; the pulse voltage is 1 100 V, the pulse length is 2 μsec, the clearing voltage is shown horizontally and the delay times are, respectively, 0.7, 1.5, 2.5 and 4.5 μsec for Curves 1-4. The parameters finally chosen are -5 V clearing and the shortest delay time. (The efficiency is constant if the product of the clearing voltage and delay

ALEKSANDROV, A.P.; POPOV, M.I.

Polishing characteristics and the resistance to wear of felt made with synthetic fibers. Stek.i ker. 17 no.4: 12-14 Ap '60. (MIRA 13:8)
(Felt) (Glass manufacture)



Popov, M. I.

FM

9

Methods of Chemical Analysis for Zinc Plants. B. Zuhovitz and M. I. Popov. (*Zvetnye Metally* (*The Non-Ferrous Metals*), 1932, 214-228; *C. Abs.*, 1933, **27**, 3081).—[In Russian.] A detailed description is given of methods used in European zinc plants.—S. G.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

Popov, M.I.

1. ZUBOVICH, S.I.; POPOV, M.I.

2. USSR (600)

4. Concrete Construction

7. Use of form liners for drainage in concrete construction. Engs. S.I. Zubovich, M.I. Popov, Gidr.stroi. 22 no. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

POPOV, M.I.

Dissertation: "Some Methods for Improving the Properties of the Surface Layers of Concrete." Cand Tech Sci, Leningrad Construction Engineering Inst, of Leningrad, 1954. (Referativnyy Zhurnal, Khimiya, Moscow, No 16, Aug 54)

SO: SUM 393, 28 Feb 1955

Popov, M. I.

USSR / Cultivated Plants. Medicinal Plants. Essential Oil Plants. Toxic Plants.

Abs Jour : Ref Zhur - Biol., No 8, 1958, No 34858

Author : Popov, M. I.
Inst : Not Given
Title : Lemon Trees in the Vicinity of Moskow

Orig Pub : Sad i ogorod, 1957, #5, 71

Abstract : Described is the Chinese lemon tree, a monoecious plant containing tonic and other stimulating substances. Methods for its cultivation and use are described.

Card 1/1

POPOV, M.I.

Study of the bacterial contamination of bread during its transportation from the bakery to the buyer. Gig.i san. 26 no.12:89 D '61. (MIRA 15:9)

1. Iz Krasnodarskoy krayevoy sanitarno-epidemiologicheskoy stantsii.
(BREAD--BACTERIOLOGY) (BAKERS AND BAKERIES--HYGIENIC ASPECTS)

[redacted]

[redacted]

1. POPOV, M. N., KAZAKEVICH, T. A.

2. USSR (600)

4. Philosophy - History

7. Discussion of the rough copy of the second volume of "History of Philosophy." Vest. Len. un., 7, No. 3, 1952

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

Popov, M.N

99-11-2/5

AUTHOR: Popov, M.N., Chief of the Main Administration for Hydraulic Engineering of the Ministry of Agriculture, RSFSR.

TITLE: Development of Water Resources in the RSFSR (Razvitiye vodokhozyastvennykh rabot v RSFSR) (40th Anniversary of the Great October Revolution) (K 40-oy godovshchine Velikogo Oktyabrya)

PERIODICAL: Gidrotekhnika i Melioratsiya, 1957, No. 11, pp. 15-30, (USSR)

ABSTRACT: The Communist Party and the Soviet government have always endeavored to increase agricultural production and thus raise the general productive capacity of the USSR. There are vast territories of fertile soil in the USSR, where precipitation is insufficient or irregularly distributed, and where crop failures occur from lack of moisture. In contrast, other parts of the USSR suffer from abundant rainfall, and require drainage. The Soviet government has appropriated progressively larger sums for melioration purposes during the course of the 5-year plans. In 1956, the expenditures for melioration amounted to 379 million rubles, and 477 million rubles in 1957. After the October Revolution the government developed the irrigation systems of the Dagestanskaya, Kabardino-Bal-

Card 1/5

99-11-2/5

Development of Water Resources in the RSFSR (40th Anniversary of the Great October Revolution)

karskaya and Severo-Osetinskaya ASSRs and their border territories. The acreage under irrigation in the North Caucasus was increased from 145,000 hectares before the October Revolution to 712,000 hectares. Large irrigation projects were carried out during the Soviet regime to supply with water extensive sheep raising ranges of the Ural Mountains and Siberia. Construction of the Nevinnomyskiy canal in the Stavropol Kray was completed in 1948. In 1953, the Novo-Troitskiy Hydroelectric Power Plant with a discharge capacity of 375 cu m/sec was built, which delivered irrigation water through the 123-km-long Pravo-Yegorskiy canal for 19,000 hectares. In 1957, Stavropolstroy started construction of the Kuban'-Kalausskiy irrigation system to supply 2.9 million hectares with water and put 198,000 hectares under irrigation. Included in this system are a 33-m high earthen dam, a reinforced concrete headgate to discharge 180 cu m/sec or 2.12 billion cu m an- through the 159-km long main canal into a reservoir Solenye Ozera of a capacity